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Climbing Plants as Helps to Home Adornment.

COUNTRY life abounds in so many objects of beauty that there really seems no limit to the pleasure a genuine lover of nature may enjoy. In the hands of the skillful landscape gardener, every tree or shrub becomes a natural embellishment. Even the noble line of shade-trees becomes the most valuable of all decorations and treasures worthy of highest pride. Yet, after all, what delicate taste and suggestive beauty seem gathered up in the associations of *Climbing Vines.*

Helps to home adornment we have called them, and the fairy fingers who twine them around their parlor-windows, or along the piazza, or on the rustic trellises before the cottage-door, can tell you how well they appreciate their value in making home so pleasant.

The motion of the climbing vine as it sways in the breeze is suggestive of poetic associations. At one time, like an ivy, it clings with loving fondness to the decaying oak which supported it in its infancy; again it runs wildly over a rustic bower; then clings to some gnarly grape-vine; again dips its tender branchlets in the sparkling waters of the slowly-gliding streamlet; while the beautiful, flower like golden cups may lead our imagination to believe they are the drinking-vessels of the fairies of the woods; and then it dances away in the finest wreaths and natural festoons of mingled verdure and flowers.

Climbing Vines are not a Pleasure only, but a Necessity.

Wherever there is an unsightly fence or wall, there exists the opportunity to render it the most beautiful part of the garden. Our new built houses, with all their elaborate decorations and imposing designs, are still cheerless until mellowed and softened by the genial touch and presence of nature. The wood, brick, or stone stand out in angular outlines, bare and hard, and lack the one thing needful to heighten their effect. Let them be wreathed with climbing vines, and let their corners be hid under the delicate foliage or brilliant flowers of the vine, and architecture and nature combine in harmonious proportions to produce highest picturesque effect.

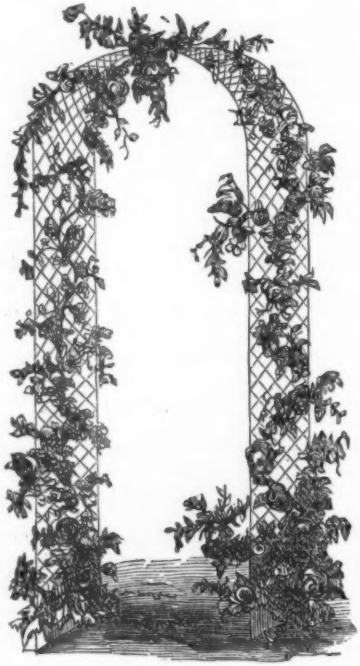
Our climbing vines, although hitherto attracting little attention, are worthy of extended notice as a valuable accessory to home embellishment, and we propose to describe a few of the most useful and popular.

The Bignonia.

First on the list we notice with special admiration the Scarlet Trumpet Creeper, (*Bignonia grandiflora.*) This magnificent plant, wherever sufficiently hardy to grow with vigor, is one of the most attractive of all creeping vines, attaching itself firmly to walls, buildings of stone, brick, or wood, trunks of trees, hedges, or arbors; it throws out innumerable aerial rootlets, develops its large, handsome scarlet flowers in clusters, and forms a gorgeous sight

in late summer, producing a striking contrast with the rich-pointed foliage, and a splendid object when grown on the trellis. We have observed it in Delaware, growing on the sides or tops of the Osage orange hedges, throwing out its glossy green leaves, surmounted with its brilliant trumpet-shaped flower, extending for many yards, and eliciting expressions of admiration from the passers-by. Downing, commenting on its beauty, says:

"In the blossom of the 'grandiflora,' however, lies its peculiar beauty. These are produced, in great profusion and clusters, in July and August, so as to give the whole plant an exceedingly gay and lively appearance. They are not long and tubular, like those of the common trumpet flower, but somewhat cup-shaped. The color is beautifully varied, the outside being a rich, pure, orange scarlet, marked with bright streaks. These gay clusters open their blossoms in succession, so as to keep up a brilliant appearance for a long time; and we are acquainted with no climbing shrub, except the Chinese Wisteria, which at all vies in elegance or brilliancy of effect, in the garden or pleasure-ground, with this, during the season of bloom. One we counted over three hundred in bloom at once, upon a plant in our neighborhood, and the same profuse display continued a fortnight or more. Any dry, light, well drained soil suits this climber. It should be made rich; and in such soil, moderately when planted against a wall, it will cover a space twelve or fourteen feet square in two or three seasons. It is well worthy the attention of those who are looking for climbers of a permanent kind to cover unsightly walls, or close fences, or to render garden buildings of any kind more ornamental by a rich canopy of foliage and bloom."



The bignonia will be found a little tender in localities north of New-York, but can be very easily protected during the winter by tying a layer of straw over the shoots or laying some branches of evergreen against them at the approach of winter. This course followed for two or three years will serve to strengthen and harden the wood gradually, after which it will thrive with only ordinary care. In the Middle and Southern States, where it takes on a robust habit, it excels in showy splendor its brilliant efforts here, and fairly glows in midsummer with its thousands of rich orange-red blossoms, "like clusters of bright goblets." A remarkable specimen of it existed several years since in Baltimore. It covered a three-sided trellis, fifteen feet in height, and the owner one day, counting its flowers and buds, found it to contain fifty-four corymbs, each of which averaged ten flowers and twenty-seven buds; in all, upward of five hundred flowers, and fifteen hundred more buds just forming. Few or no climbing plants will bear such comparison with it in luxuriance and brilliant effect. The flowers are borne in clusters; and the buds, just like a half-opened rose-bud, are nearly as beautiful as the flower itself.

An additional effect is often gained by mingling the vine with that of the wisteria, planting them so that the two may twist and twine together. The contrast of folige or flower is very pleasing; but growing in its native habitats, along the road-fences or covering the hedges, it bursts suddenly upon the passing traveler with its living, fiery bloom, and is ever after remembered with expressions of delight.

The Knox Fruit-Farm.

AN EDITORIAL VISIT.

MR. KNOX'S name long since has become a household word throughout the country, and few towns but have heard of him and his Jucunda Strawberry.

His success in fruit culture has made his farm a constant source of admiration from never-ceasing throngs of visitors; but like the *general* of old, who "*came*, and *saw*, and *conquered*," Mr. Knox's equally successful exploits in horticultural experience and enterprise, with yearly crusades into all parts of the land, dropping his plants or catalogues before every door, make him not a *general* merely, but a *generalissimo*, whose conquests have the rare merit of being won not by the sword of war, but the "*spade of peace*."

The Knox fruit-farm is situated about two and a half miles from the centre of Pittsburg, south-west over the heights of Birmingham. As the road winds in and out over the points or indentations of the hills, gradually ascending until the top is reached, there is constantly presented a beautiful panorama of the busy city, with its hundreds of furnaces and factories, coining ore into metal, and metal into merchandise; a city rich in wealth and prosperity, and famous for the liberality and enterprise of its citizens.

The Knox fruit-farm has a front of perhaps fifteen hundred feet on the principal road, running back southward over the brow of a high hill, and then rapidly descends upon the other side, only to rise again, but more smoothly. Upon the slopes of these hills, facing north, south, east, and west, are laid out the great squares, rows, or blocks, which unite in forming a magnificent field of one hundred and sixty acres, teeming with trees, vines, and plants, growing either for fruit or for sale.

We had expected a rare sight, but had formed no idea of the magnificence and extent of the "*generalissimo's battle-ground*." It reminds one of the famous vine-clad slopes of the Rhine, whose picturesque summits are crowned with the never-failing vine, while the air of romance and beauty lingers around.

Here the American spirit of "utility" crops out so largely that, while there is a suggestion of romantic beauty in the fortunate position of the vineyards, still every visitor forgets that in the natural curiosity to learn the elements that have conspired to produce so great a success. Of the entire farm of one hundred and sixty acres, thirty are devoted to grapes for bearing, ten to fifteen acres to strawberries, and the entire balance of the place to propagating purposes.

As we walk over the different parts of the farm, we can not fail to notice the admirable order and system which characterize the arrangement of all the fruits. Here is the Concord vineyard, like a solid phalanx: it fronts the observer, and its long stretching arms, running away out of our sight, glisten with bunches hanging thick and purple, luscious reminders of the glories of the harvest. There is his field of experimental grapes, of which many a story of wasted money might be told; there that bed of experimental strawberries, none of which approaches the immaculate Jucunda.

It is a significant fact that, although Mr. Knox has tried nearly every variety of merit of the different species of small fruits, yet he discards them all, sooner or later, save only a few popular favorites, *which succeed everywhere*.

The Concord grape, reproached so often by horticultural palates of high dignity and quality, as not the grape for America, we here, with Mr. Knox's vines before our eyes, throw in our plea in its behalf, and crown it "*lord of all*."

Its matchless luxuriance, its almost unfailing certainty, its health of foliage and vigor of plant; its noble clusters, produced in remarkable profusion; its admirable adaptation to all parts of the country, entitle it to recognition as *the best grape now known for American cultivators*.

Upon Mr. Knox's place, it has never failed to give a crop; and Knox's Concords enjoy as much of a reputation in Philadelphia and Pittsburg markets as does the Jucunda in New-York.

Besides the Concord, very few other grapes are found worthy of preference. Nearly every desirable variety is grown, and with varying success. The Rogers's Hybrids mi dew badly; likewise the Iona, Israella, and Eumelan. The latter is a weak grower with Mr.

Knox; still, no definite opinion can yet be given of its value. The Iona is also very weak, yet has a tendency to great fruitfulness.

The *Israella*, for this latitude, has not given good satisfaction, but will be found better suited to a more southern cultivation.

The *Hartford Prolific*, *Ives*, and *Creveling* are counted among the most reliable; always sure of a large crop, and being earlier, are more profitable.

The two seedlings of the Concord, which have attracted so much attention, the *Martha* and the *Black Hawk*, are found here under most favorable circumstances.

The Martha is in every respect a handsome vine, healthy, vigorous, productive, bearing fine bunches of large, clear white grapes, with a fine flavor, much more delicate and sprightly than the Concord. As it appears in Mr. Knox's grounds, we would esteem it superior in value to any thing he has yet grown. Still, we can not judge yet of its success in other localities. We hope for the best, for it appears to be worthy of a wide dissemination.

The Black Hawk possesses nearly the same characteristics as the Concord, but is a much ranker variety in growth; leaves of a very deep green, and fruit a week earlier; quality somewhat sweeter.

Grape Trellises.

These are a feature of interest. The vines are planted in rows eight feet apart, and plants six feet in the row, trained by arms and upright laterals to the slats. Locust posts two feet long are put out at appropriate distances along the rows, and driven into the ground; to the top of these hemlock scantlings are nailed, reaching up seven feet, and at the top and bottom horizontal bars are nailed, the entire length of the row. Ordinary laths are then nailed vertically along the bars, at distances of nine inches, and the vines trained perpendicularly along the slats.

Such a trellis as this costs about $400 per acre, but is permanent, durable, simple, and easily put up; seems to correspond best with the mode of culture and the habits of the vine, and has been found far more preferable than wires, which will sag, and are difficult to train upon.

Between the rows of grapes are grown either a double row of strawberries or a row of raspberries; the coolness of the soil and the partial shade has been found very beneficial for their growth, and during the first years of the vineyard this crop is grown; but after the fourth year, when the vines are in full bearing, no other crop is permitted upon the same space, and the ground is given entirely to the grapes; one crop only is enough to take from the ground at the same time.

Strawberries.

The great feature of the farm is the *Jucunda Strawberry*. Our visit was not made in fruiting season, but just as grapes were ripening, and hence we could not judge of the Jucunda as in fruit. We are observers, however, of their growth and cultivation.

Mr. Knox has tried several methods of cultivation to arrive at the best plan for greatest success. At first the plants were put out in rows two and a half feet wide, and eighteen inches in the row. This allowed an abundance of room, which was found afterward too much, and a second plan was adopted. This was in beds; the beds consisted of rows eighteen inches apart, and plants one foot in the row; then an alley three feet wide, after every third row. This increased the productiveness per acre, but made the cultivation more difficult.

Finally a *third* method was tried, and with such success that it is now the standard rule. This consists simply in planting the rows two feet apart, and plants one foot in the row. The soil is of a peculiar character, containing a greater proportion of shale or clay than loam, and yet well drained, providing just the most favorable conditions for the successful growth of the vines and plants.

We are somewhat surprised to hear that very little manure is used, except in first preparation of the ground, and little or no application yearly, as long as the plantation lasts. And yet the production is marvelous. The produce per acre has as yet never been accurately measured; but the opinion of Mr. Knox is, that good stools will average one quart

each. During the last fruiting season, the berries seemed to hang and crowd each other upon the vines, all large and of splendid appearance; some of so monstrous a size that eight would fill a pint, while ten or twelve to the pint were very frequent.

The reputation of the Jucunda has become so great that he has no difficulty in disposing of immense quantities at any price he may choose. Hitherto large quantities have been sent yearly to Philadelphia and New-York, commanding uniformly high prices—never less than forty cents per quart, and from that to eighty cents.

The past season proving too wet and unfavorable for shipping, and the home demand being so great, nearly all the entire crop was sold in the markets of Pittsburg, at prices of forty to fifty cents per quart; while very choice fruit, to fill distant orders, was put up in small crates of four quart boxes each, and large quantities sold for one dollar per quart. As Mr. Knox himself remarked to us, customers seemed willing to pay any price to get handsome Jucundas to take home and *show* to friends and neighbors, as well as to eat.

The receipts from home sales of strawberries have reached as high as $1000 per day.

The Fillmore is second only to the Jucunda in desirability, proving nearly equal in size and productiveness, but of a better flavor. Shape is fine, plant vigorous, dark color, and very firm for market. Is a pistillate variety.

Of all the remaining hundred or more varieties which he has experimented with, the Wilson, Triomphe de Gand, and Agriculturist are the best, and have done uniformly well. Burr's New Pine is early and bears well; while another variety, *Reed's Late*, is also thought well of; but all the rest are but dwarfs to the great Jucunda.

Mr. Knox's system of cultivation is no secret. We are surprised to see how simple it is, and yet how marvelous the results. The Jucunda, even on Mr. Knox's place, is not a rank grower. It is a clean, upright plant, leaves only of medium length, and luxuriance, and not as strong as either the Agriculturist or Wilson Albany; but it forms a very compact stool, and seems to concentrate all its vital forces in the production of fruit; and it is often a mystery among visitors how the plants could produce and mature so many and so uniformly large berries upon the stools, and average so well year after year and acre after acre.

It is customary with beginners putting out their strawberry-beds in the spring to expect the next year but a moderate crop, while the second crop is considered by far the best. With such varieties as the Wilson and Agriculturist, the beds need renewing every second or third year; but with Mr. Knox, a Jucunda stool lasts five or six years, and its first crop and last crop are equally as good as the intermediate ones. The production varies very little year after year.

Mr. Knox keeps his ground well cultivated. After the plants have been set in the spring, the rows are cultivated and weeded by hand, the hoe being the only instrument used, no horse cultivator being allowed. All runners are kept nipped off close to the plants, and none suffered to make growth. This hand cultivation continues until fall, when, on the approach of winter, the entire bed is covered with a heavy mulch of rye straw. This remains until spring, when it is brushed aside from the tops of the plants, yet allowed to remain close around the crown and cover the ground from row to row. Here it remains until the next fall, keeping the ground cool during fruiting season, and also sustaining the plants against the effects of the hot sun.

If there is any secret in Mr. Knox's system of cultivation, we can not see it. Our view is, that his success comes simply from careful culture, *thorough hand work, cutting off all runners, keeping in hills, and mulching.*

The mulch is as much an element of success as any other part of the labor. Having used it ourselves, we know its value, and would omit any other part of culture rather than this before giving it up. The mulch is as much needed in summer as in winter; and in times of protracted drought is almost the only salvation of the plants.

The Jucunda in other sections of the country seems to make a varying record. As a rule, it does not seem adapted to light land; and the causes of failure may be attributed either to poor land or careless culture. If cultivators will choose heavy land, well drained, and grow in hills well mulched, we think the Jucunda will be uniformly successful. As it is, this year it has grown in popularity, and is winning golden opinions from those who know how to grow it aright.

[*Raspberries.*

The *Clarke* raspberry maintains on Mr. Knox's place every admirable quality claimed for it by other growers. It is healthy, vigorous, very fruitful, and fruit of fine quality. It is preëminently a superior family fruit.

The *Philadelphia* is still the raspberry for the million—very hardy, enormously productive, and fruit of reasonable quality. Is exceedingly vigorous, and never known to fail in producing a crop.

The *Hornet* is a great favorite with Mr. Knox; he experiences no difficulty in its culture. It is a good, strong grower, very productive, fruit of largest size and fine flavor. He has had the berries so large that people did not know what the fruit was. It requires more care and attention than other more hardy varieties, and it is always well to lay it down during the winter; but it will well repay for all such painstaking culture.

The *Pilate* is of a better flavor than the Hornet, but not as large. Is very early, productive, and quite firm.

The *Naomi*.—Mr. Knox has taken considerable pains to obtain a stock of the true Naomi; and has several thousand plants now growing in a field, testing them both for fruiting purposes and for comparison with the Franconia. The growth is very rank and healthy; and, as far as he can judge, is much hardier and stronger than the Franconia. He has great faith in it; still, will give it a fair test, and if precisely the same as the Franconia, he will be honest enough to sell it as such, and not for another variety.

Knevets Giant is quite good, but not as successful as the Hornet.

Currants.

These are a profitable crop with him for market, bringing in the Pittsburg market a price of twenty to twenty-five cents per quart; while the demand for plants is very large. Nurserymen generally now admit the currant trade is large and profitable.

The principal varieties grown are the Cherry, Versailles, Fertile de Angers, White Grape, and Victoria. They are all excellent. The Cherry and Versailles, as usually grown, are so much alike as to be substituted and sold for each other; so much so, that horticulturists have asserted there was no Versailles currant. Mr. Knox says there *is* a marked difference with him, the Versailles not ripening as soon as the other. Mr. Andrew S. Fuller, who has over one hundred varieties of currants now growing, has gathered Versailles from very many different quarters, and found them all precisely the same as the Cherry, with the exception of one lot from André Leroy, France, which is quite distinct and undoubtedly true, not being as vigorous and much lighter in leaf—his plants not yet fruiting so as to distinguish in matter of fruit or quality.

As we leave Mr. Knox's place, on our journey home, we can not help contrasting his place with many other fruit-farms we have witnessed this year. He has taken care of his grounds; they none at all. His strawberries have been well grown and well sold; theirs poorly grown and sold at a loss. He is enthusiastic and hopeful; they dejected and gloomy.

Likewise we contrast his method of business with other nurseries we know.

He aims to have good stock, and send out nothing poor; they aim to grow large quantities and sell at low prices. He sends his out packed in splendid order, and they arrive in fine condition; they pack in boxes and barrels, jamming all down in one undistinguishable mass, which ferments and rots before it reaches its destination.

They recommend any thing they have to sell, without qualifications; he recommends nothing which is not a genuine success. They aim to sell but for the passing season; he aims to sell for years ahead. He has the confidence of his correspondents; they have not.

Can any one imagine where these two courses, so widely different, will result? With such honorable principles of business and liberality to purchasers as his, is it at all strange that the harvest of his toil is rich beyond description? We have every reason to rejoice in it; for every one in the great band of American horticulturists welcomes with pleasure such instances of individual success.

The Ailanthus.

I HAVE been much surprised, in looking over numerous catalogues of ornamental trees, and in reading the frequent tirades against the *Fœtid Ailanthus*, to observe that no mention is made of its beautiful congener, the *female Ailanthus*, which abounds in this immediate vicinity.

We have growing here a tree so nearly resembling the common ailanthus that it is difficult to distinguish them at any stage of growth, except during the blooming season. But in June, when the male tree exhibits its offensive blossoms, (which perish in about three weeks,) the female also puts forth a flower, (at first scarcely distinguishable from the other,) which develops into superb clusters of seed-pods. These clusters are from ten to fifteen inches in length, and of equal breadth. They are at first of a delicate green, (resembling hops,) and in time are tinged with a pink blush, then turn to a lively red, and later in the season to a rich maroon. They hang on the tree until frost, are entirely inodorous, and are worn by the ladies in their hair, or used for dressing the flower-vases.

The leaf-stems of this tree are longer, and its habit of growth more graceful, than the common ailanthus; the limbs in the larger specimens having a tendency to become pendulous. It does not sucker, but scatters its seedlings as thick as weeds, which are as easily eradicated.

In short, this tree possesses all the advantages of easy cultivation and rapid growth which made the ailanthus once popular, far surpassing it in oriental grace and richness, and is at the same time entirely free from its troublesome and offensive qualities.

We regard it here as the most beautiful and delightful of all our shade and ornamental trees.

In view of the close resemblance between the two trees, especially in their early growth, I can not but believe that the common ailanthus was introduced and propagated by mistake, and that those who brought it to this country intended to have introduced the tree which I have described. I inclose a specimen of the fruitage in its present condition.

DAVID H. STROTHER,
Berkeley Springs, West-Virginia.

Removing Runners.

The Easiest Way of Cultivating Strawberries.

FEW will deny that larger crops of strawberries can be raised by clipping the runners than by allowing them to run and form plants; but the objection generally offered is, that it is too much work to remove the runners.

Were this objection valid—were it true that it requires more labor to cultivate an acre of strawberries, removing runners, than it does allowing them to run, then it would be a pertinent question, Would it not be politic to expend the labor necessary to cultivate an acre on the broad-cast system, on less land on the hill system, producing the same amount of fruit?

But, after years of experience, I have come to the conclusion that strawberries can be cultivated with less labor if the runners be removed. I know that this fact is to be established by practical experiment, rather than proved by argument, yet I offer a few considerations showing the plausibility of the proposition. I find it necessary to clean out a plantation of strawberries about five times, on an average, before getting a crop of fruit. I generally plant my rows far enough apart to allow the passage of a cultivator two feet nine inches or three feet. The first cultivation would be about the same under both systems. We would cultivate between the rows, and hoe between the plants—hand-weeding near the plants. The runners would not be started enough to require clipping or to interfere with hoeing.

After the first hoeing, the runners would generally need clipping about twice to every hoeing; so that in hill-culture we should have to clip the runners twice, and cultivate and hoe once for every time that we should be obliged to cultivate and hoe once in the matted system. Now, where is the gain? We gain, in the less labor required to clean out the rows in the former system than in the latter, more than the labor of clipping the runners twice.

It does not take a quick motioned boy or girl long to clip the runners on an acre of straw-

berries with a knife; and then we can cultivate close to the hills, and with a hoe soon cut up the weeds between the hills.

But when the runners have spread in every direction from the hills, and taken root, the space that the cultivator can clean is narrowed, and it becomes a tedious operation to hoe between the young plants. In fact, many of the weeds must be pulled by hand. Here the question might be asked by the unreflecting, Why be so careful to avoid tearing up the young plants with the hoe and cultivator? Why not tear them up, and cut off the runners with the hoe, thereby saving the labor of clipping the runners with a knife or other implement? The answer is, the runners must be removed before they form plants, or they will so exhaust the parent plant as to prevent its *stooling*, and our yield of fruit would be small indeed.

ROCHESTER, N. Y. P. C. REYNOLDS.

Duchesse D'Angouleme Pear, Ten Years Old.

Pear Culture for Profit.

AN observing horticulturist can not fail to notice that of all standard fruits the pear is now becoming the most popular, and its cultivation is attended with greatest interest. Beginners, then, in pear culture for profit, need a little more advice than fruit-books are accustomed to give us as to the simplest, most practical method of treatment, together with reliable information as to choice of varieties, and how to market them properly.

This is all supplied in Mr. Quinn's new volume before us, which details in a plain, practical manner the essentials of success in this branch of fruit culture. The work does not discuss the merits of an extended list of varieties, but only of those that have proved most profitable and popular in the market. It would have added to the interest of the volume to have devoted a chapter to miscellaneous varieties, inasmuch as pears, like other fruits, are capricious in their successes on varying soils and in different climates. The Buffum pear-tree, one of the most beautiful ever grown, is not noticed; and also the Louise Bonne de Jersey. The public know these are too valuable to be overlooked; and we think that, although Mr. Quinn's book is still admirable in practical suggestions, this question of varieties needs another chapter to complete the interest.

We find many items worthy of notice, and quote a few.

Mulch.

I find that it is a good plan to mulch the ground around the body of the pear-tree, late in the fall, with salt hay, straw, or other litter. It not only keeps the frost in later, retarding the buds from swelling before the weather is settled, but also prevents the alternate freezing and thawing that prove so fatal to young trees in many sections of the West.

Early Ripening.

There is no advantage in ripening pears early—in fact, there is a disadvantage; for if the Bartlett and Belle Lucrative are on a southern exposure, they are ready for market at a time when peaches and blackberries are in abundance; and, as a matter of course, they have to be sold at a much lower price than when peaches and berries are disappearing.

This is also true of the Duchesse d Angoulême. In the early part of October, pears of this variety frequently sell from $8 to $12 per barrel; while in November prices advance, and it is not unusual to get from $20 to $30 per barrel for the same quality of fruit.

Distances for Planting.

Standards pruned to make pyramids may be planted as close as twelve feet by sixteen. With a careful and judicious system of pruning, this will be found ample room for standards. We have standard trees, set out thirteen years ago, on well prepared soil, at these distances, and I am convinced they have plenty of room for all purposes.

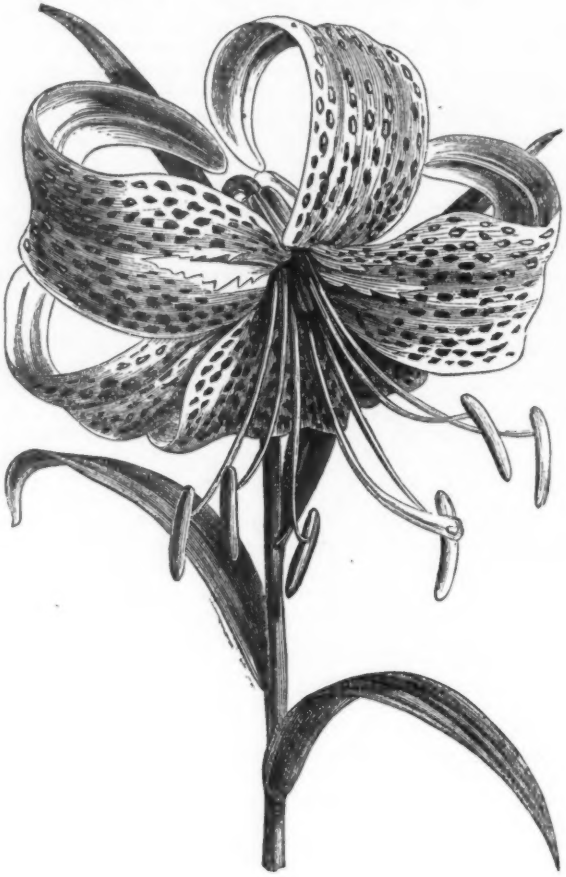
Dwarfs require less room than standards. Our first plantings were set eight feet by twelve; but we found that too great a distance between the rows, and at each successive planting we reduced it, until we got down to ten feet by ten, which, on strong ground, is as close together as they ought to be planted. Every tenth space is left fifteen feet wide. This is necessary in an orchard, to permit a cart to pass between the rows in manuring the trees and gathering the fruit.

Age of Trees for Planting.

For many years during our early experience in pear culture, we planted trees in the orchard not less than two years old, believing that younger trees would not do as well. On this point we have changed both opinion and practice; and we now select well-grown, one-year-old stock in preference to all others, for the following reasons: Trees of this age cost about one half as much. When planted in the orchard, they will become more uniform in shape and size, with less labor. The purchaser will get more roots in comparison with the tops; and the freight will not average more than one quarter—for one hundred one year old will not occupy more space than twenty five or thirty two years old.

Our space prevents further extracts; but we commend it to the public as worthy of general perusal.

Lilium Lancifolium Rubrum.



Plant Hardy Bulbs Now.

BY WALTER ELDER, LANDSCAPE GARDENER, PHILADELPHIA.

THE culture of bulbs is one of the most fascinating and ancient branches of floriculture; and a sort of veneration shines over it by the frequent allusions in Holy Writ, from which we are led to believe that all the various genera of bulbs were classed into one family, and called *lilies*. Solomon was so much enamored by the beauty and fragrance of their blooms that in fondness of his church he says, "My beloved is gone into his garden to gather lilies; my beloved feedeth among the lilies." And our Saviour tells us to "consider the lilies, how they grow; they toil not, neither do they spin; yet even Solomon in all his glory was not arrayed like one of these."

The power of Omnipotence is visible in the culture of bulbs. *Snowdrop*, though the most fragile and dwarfish, is the earliest harbinger of spring, and braves the storms of February in performing its office. *Crocus* follows with colors yellow, purple, and white,

and entices the bees from their hives, making a combination of beauty and music early in March. *Crown Imperial* and *Hyacinth* simultaneously come next, the former with crowns of yellow, orange, and gold. Some have their stems and leaves striped with yellow and green, and orange and green. Hyacinth of many colors, all fragrant and beautiful. *Narcissus* and *Tulip* follow together. Narcissus largely shows yellow; its whites are sweetly perfumed. The gaudy tulip surpasses all other genera with its diversity and matchless markings of its blooms, which last until the rose shows its splendor. Then the white and orange *Lilies* take the field. The Martagons and other lilies follow in their times. *Ornithogalum* and *Ranunculus* have many species, all beautiful and sweetly perfumed. Tuberose comes on last.

We can remember when there were two vacancies in the bloom of bulbs; but now the Japan Lily, Gladiolus, and Iris fill up the gap in summer, and Tigridia fills up that of autumn. So we have an unbroken chain of bulb-blooms, from snowdrops in February to tuberose in November. The latest wonder and glory among bulbs is the great golden lily, called *Lilium Auratum*. The blooms are eight inches in diameter; the ground white, with purple spots, and stripes and edgings of gold.

The bulbs of Gladiolus, Iris, Tigridia, and Tuberose are planted in spring and dug up in fall. Mr. Peter Henderson, of New-York, is correct in stating that these tender bulbs suffer by being kept too long in a cold temperature during winter. Our experience has taught us that fact. October is the chosen month to plant all the hardy bulbs, as the soil under the surface is then for two months warmer than the atmosphere. The bulbs make numerous roots before winter sets in, which gives them greater strength of growth and beauty of bloom. They flourish upon almost every kind of soil made rich with manures. Different soils need different kinds of manures to fertilize them; so the common culture and care given to other crops will insure success in the culture of bulbs. Yet that old fogy rant about *cow-dung* is still published in the catalogues, although it became obsolete fifty years ago. It was only suited for the sandy soils of Holland, which was once a bed of the sea.

We have received the annual catalogues of Louis Van Houtte, of Ghent, in Belgium, and of Krelage & Son, of Haarlem, in Holland, from which we learn that the past summer has been most favorable for the ripening of the bulbs; so there will be no loss by rot in transporting them to America. And Henry A. Dreer, of Philadelphia, from his late tour among nurserymen in Europe, certifies the conclusions that the bulbs are well ripened; and many new, superior varieties have been added to the lists.

Star Papers.

Hill Culture of Strawberries.

WHAT is the true method of cultivating strawberries? Shall we grow them in beds, or rows, or in hills; and how far apart shall we plant our hills?

I have thought very frequently that fruit-growers as a class have neglected proper experiments in arriving at a settled judgment on this point.

I meet one fruit man who says that he can make more money on the bed system, permitting the runners to go unclipped, and the ground cultivated with a cultivator at only occasional intervals. It is true, he says he gets but ten cents per quart, while others get fifteen or more; but he claims that as less labor and expense attend his crop, there is still as much profit as in a higher-priced crop attended with greater cost of cultivation.

I call his mode of culture slovenly, and say that he does not know how to grow strawberries; but he knows better, and says that his land pays him better than corn or grain, and he will keep at it until he fails.

Another grows his plants in rows, and seems to be satisfied with good crops every other year and moderate ones between. But it is a question with me whether the crowding of the plants so closely in the row affects their bearing qualities; although it is a great improvement on the other, still it is far from perfect.

A third method is to grow entirely in hills. I have never yet known a failure of a grower who adhered rigidly to the hill culture of strawberries, and, as a rule, I believe that they have all found it to be the easiest and surest way of getting a big crop and fine berries, year after year.

But how far apart shall we plant our hills? Some put out their rows three feet, and plants two feet distant in the row. Others, with but a small space of ground and bent on great economy, plant two feet by one. This necessitates hand work; and with strong growing varieties, the plants will touch each other in the row, and eventually it will be the repetition of the row system over again.

My method would be to plant in rows two to two and a half feet apart, with plants eighteen inches in the row. Manure heavily with barnyard manure, and stimulate with bone-meal. Cultivate the row with a horse cultivator, and hoe by hand between the hills. I am confident that the plants under such good treatment will produce a greater amount of fruit than by any other system possible.

While it may not be possible for every plant to average a quart to every hill, yet the produce will be so near to it that the grower will be astonished. I firmly believe that the hill culture of strawberries has more to do with success in the business than all other points put together. Can any one prove to the contrary?

Late vs. Early Fruits.

Do we need any more early varieties of fruit? Have we not now an abundance sufficient for all ordinary purposes? Thus far no strawberry earlier than the Wilson has been found profitable, and since strawberry culture is extending over so great a latitude, we can have as early berries of the Wilson as we desire, almost at any time.

Transportation is now so easy and quick that consumers can buy fresh fruit almost at any season of the year, and the necessity or rage that has hitherto existed for early fruits is now lost sight of in the actual abundance that meets the eye of the consumer.

The Editor of THE HORTICULTURIST is right in his statement that "fruit culture, to be profitable, requires *steady* supplies of fruit;" but I am one of those thinking people who believe in doing things when others are not doing them, and I can have the field without much competition. While every one else is rushing his early fruit into the market, I will look on and see the glut; soon the supply ceases, and prices advance; then I bring my late fruits in, retarded by heavy mulching, or of naturally late varieties, and I am sure of steady prices. We need, in strawberry culture, a succession of varieties, ripening one after the other, like peaches. First come the Hale's Early, then the Early York, then Crawford's Early, then Old Mixon, and so on down, keeping up a succession for six weeks or more.

A careful observer of the times will hereafter notice that there will be more attention paid to *late* fruits than early ones, and, in addition, the scale of quality will gradually ascend.

Consumers, having now an abundance of fruit, will be more discriminating in their taste and choose fruit of choicer character. Late fruits are of uniformly better flavor, color, and size than early ones. Hence, I say, grow them wherever a good market can be commanded.

Blackberries.

There is a limit to the profitable cultivation of blackberries. It is a fruit not as largely consumed as strawberries, and generally coming into market just as other standard fruits begin to make their appearance, such as early peaches and early pears, it is very often quickly closed off at very low prices.

The blackberry crop is only profitable when there are no peaches, and this occurs only every other year. Does it pay, then, to go into blackberries *largely*, knowing that only one crop in two years can be counted very profitable?

Blackberries this year have been so abundant as hardly to pay expenses to market, and thousands of bushels have been left to rot or dry on the vines, there being no inducement to gather them.

Cultivated berries are always worth double the value of wild ones; but when we see such instances as we have seen this year, of one fruit suffering so much by the appearance of

another and more popular fruit, it is sufficient to remind us not to overdo even the blackberry business, and confirms my previous opinion, that there is a limit even to blackberry culture.

The blackberry is one of the easiest fruits grown. It needs no replanting, always remains growing from the same hill, renewing itself year after year, and, both in capital and culture, the least expensive of any thing now grown. Hence the inducements to plant it largely are very great.

Taking into consideration all the capital, expenses, and risks of uncertain crops and seasons, fruit culture seems to be settling itself down as an occupation but little more profitable than ordinary farming, and with the majority of careless growers it has proved to be so; and yet while I am always glad to encourage fruit-raising and fruit-eating, still I am anxious to have no one rush blindly into it, and become disappointed.

It would be well for every beginner to make his estimates of income very low and his schedule of expenses very high, for at least three years, and he will find that his calculations are very lucky if he begins to gain head at the end of that time. The same labor, care, skill, and capital that are necessary to conduct a ten-acre fruit-farm will conduct a fifty or one hundred acre farm of grain, vegetables, grass, or stock, and yield a more certain profit year after year.

To those who are planting out blackberries, I would simply say that a good local market is better than a city one. Of all varieties the Wilson is the earliest and most profitable. The Kittatinny is best flavored and most productive, very hardy, and most suitable for family culture.

The Lawton is still popular in the markets, selling for as much as either of the others, yet can not last long while other varieties of greater excellence are gradually taking its place.

The Dorchester is as early as the Wilson, but much smaller. A better flavor; but size is now of greater importance than flavor, and the Wilson must be crowned king of the blackberries.

For a good steady supply of blackberries, I would say, plant one half Wilson and one half Kittatinny. This will supply all needs for market, both early and late.

RICHARD ROLLIFFE.

What is the Black Knot on Plum and Cherry-Trees?

BY E. TAINTOR, HARFORD, N. Y.

ABOUT twenty-five years ago, my cherry-trees, as was generally the case in the vicinity, were killed by the black knot. I observed grubs in the knots while they were in the green state, in the months of June and July, and supposed that the grubs caused the knots. I then procured another kind of trees, which had not then been attacked by knots, and which were supposed to be proof against them. For twenty years or more, no knots appeared on them; but in June, 1865, while building a garden fence, some of the trees being in the way, and finding many knots on them, and knowing the fate of my trees twenty-five or more years before, I resolved to cut them down. This was the first year of their reappearance. I opened several of the knots, and found grubs in them about three eighths of an inch in length. The fruit at this time was about two thirds grown. I supposed that there was no doubt that the knots were caused by insects; but afterward saw, in reports of the Farmer's Club, New-York, positive assertions that the knots were not caused by insects, and concluded to make a more thorough examination next year.

Accordingly, the next year, May, 1866, seeing the knots were making their appearance, I commenced examination, the last of May, soon after the blossoms had fallen off. The knots were then in a green state, and not half grown; and, to my surprise, I could find no grubs in them, nor any thing that I thought would even produce a grub.

In a week I examined again. Did not at first find any grubs; but, on a closer examination found small, dark, irregular lines extending from the outside toward the central portion of the knot; examined very carefully, cutting off little by little with a sharp knife.

The knot at that time was in a cheesy state, and cut easily. I found at the inner end of these dark lines a little grub, not more than the thirty-second part of an inch in length, nor larger than No. 50 spool sewing-thread. I had no trouble after this in finding grubs.

In another week they were from a sixteenth to an eighth of an inch in length, and of corresponding size, and had penetrated further toward the centre of the knot. In 1867, I determined to convince myself thoroughly, and prove it to others. I commenced examination as soon as the leaves started, the season being about two weeks later than usual, and perhaps two weeks later than at New-York City. Did not discover any knots far enough advanced to crack open until May 30th; then I examined every day for thirty days. The knots commence their growth with the circulation of the sap in the spring, so as to produce the growth of new wood, and can be readily discovered as soon as the blossoms begin to make their appearance, and before they are in full bloom.

The knots are generally on twigs of the last year's growth, and can readily be discovered before they have progressed far enough to cause the outer bark of the twig to crack open, which generally takes place while the blossoms are on the trees.

The twig commences swelling for a distance of from three quarters to three and a half inches up and down its length, and in the course of a few days causes the outer bark of the twig to burst open from the internal pressure of the growing mass.

Upon examination by cutting, it will be found that the old wood of the twig has turned dark colored, or has dark streaks running up and down it for the space of one third the length of the now rapidly growing knot.

When further advanced, the wood of the knot will cleave off from the old wood of the twig, forming a cavity which afterward becomes the habitation of the grubs.

I supposed at first that, as this spot appeared to be the centre of the difficulty, and the place from which the knot appeared to develop itself, if they were caused by insects I should here find the ova or egg which formed the grub; but in this I was mistaken.

After about two weeks from the first appearance of the swellings which form the knots, and a week or ten days after they are so far advanced as to crack open, the ova or egg of the insect may be discovered by careful examination.

The first that I discovered this year was on June 10th. At that time I found but two in examining perhaps twenty knots. Perhaps this was owing to my want of skill or experience in the business.

When the swelling first bursts open, the pulpy, woody substance, of which the young knot is composed, is of a light green color, but turns dark with age, until it becomes nearly black; is rough and irregular in form; and has several little indentations on its surface, which have something of the appearance of having been bitten in by some small insect. In these little indentations or cavities the eggs are deposited, only one in a place, and from one to about half a dozen—generally three or four—in a knot. I have never been able to find but seven in any knot, and that only in one instance.

The eggs are sometimes in sight, but not often, being generally imbedded in the woody substance, a little on one side of the indentations or cavities above spoken of, and but a very short distance from the outside of the knot, and in such a manner as to make one think they have worked themselves in since they were deposited.

These eggs are very small, and not easily discovered; therefore one must look sharp, and be careful, or he will not find them. By taking a sharp knife, and cutting off, little by little, from these indentations, if you have good luck you will find a little egg, about as large round the small way as a period-mark, and around the other way perhaps a third larger.

I did not succeed in detecting the insect that laid the eggs, though I examined the knots morning, noon, and night. I could not discover any eggs in the knots until they were about as thick as a man's little finger.

In about a week or ten days the eggs commence hatching; and at first the grubs are very small, and more difficult to discover than were the eggs; but they have now fairly commenced in life, and set up housekeeping for themselves, the woody substance of the knot furnishing both food and shelter.

The grub makes its way directly to the cavity in the centre of the knot, and by the time it arrives there is perhaps three eighths of an inch in length.

Subsequent examinations convinced me that the grubs perfect their growth and leave

the knots by eating through the outside and falling to the ground soon after the time the fruit naturally ripens, where they remain, and are transformed into insects, and come forth in the spring to renew their depredations.

I think the knots are commenced by a bite or sting of an insect, which poisons the sap, arrests it in its flow to form the wood, leaves, and fruit; and this poisoned sap forms the knot, which becomes the breeding-place and food for the succeeding generation. *The only preventive is the judicious use of the pruning-knife.*

Autumn Leaves.

BY ANNIE G. HALE.

FOREIGNERS are deeply impressed with the autumnal splendor of our American forests. This gorgeous coloring of the ripened foliage, which is much more brilliant with us than in other countries, sets the deciduous trees in vivid contrast with the sombre-hued firs and pines, and makes of the most ordinary landscape a charming picture. To the rapt eye of the beholder every mountain is a celestial city, whose palace-walls are of jasper and porphyry, and the towers and battlements thereof of solid gold; while a victorious host —their oriflambs flaunting in the breeze, their armor flashing in the sunshine—seems marshaled on every plain, and bivouacking along all the valleys. So glorious yet so transient, even as the pageant of a dream; for after a few fair days the denuded trees—like bleaching skeletons, bald and bare, or grim ghosts of departed grandeur—toss frantically their stiff, stark limbs, from which the brightly-tinted leaves have fallen, and are scattered to the four winds; or, ruthlessly torn and trampled under foot, are fast returning to their original dust.

This change from the cool greenness of spring and summer to the warm scarlet and crimson and purple and gold, which the trees and shrubs assume, is not caused by, nor is it dependent upon, the frost, as was once popularly believed. It is but the perfection, and consequent euthanasia, of the foliage, to which each tree, "after its kind," has slowly and surely tended; gradually developing itself through the early and later rains, drawing strength and symmetry from many a rough breeze, as well as from the gentle dews and benignant sunshine; and even in early August, branches—sometimes whole trees—may be seen which, under circumstances favorable to a rapid maturity, have acquired those gorgeous hues premonitory of decay.

It is a law of nature that a purpose accomplished, an end attained, the instruments employed and the means used shall be transferred to other hands, while the toilers cease from labor and "their works do follow them." So all leaves have their time to fall. Even the most persistent evergreens, that bide the frosts and storms of winter, pass through their appointed periods, and then cast their foliage, which through decay is resolved to the elements, and then, as with all created matter, started again upon a new phase of existence. "There is no death; what seems so is transition." But a portion of this splendor, which in autumn is lavishly scattered abroad, we may rescue awhile from decay, and, brightening with it our indoor life, fill the dark days of winter with light and beauty.

Since an observant American woman has taught the Parisian belles how becoming our autumn leaves are to dark-haired ladies, and thus created a demand for this foliage as a personal decoration, its wonderfully varied tintings have been more generally noticed and admired; and many attempts are made to retain this beauty, which, when properly preserved and managed, gives elegance to the humblest apartment.

Though a few trees may ripen their leaves in August, it is not till the middle or last of September that we can obtain them in variety; while even as late as November we must wait for some species. Then, whether we pick them from the ground, or cut twigs and branches from the trees, only the most perfect in form, and the clearest in their hues, and the most nicely shaded should be selected, being careful that each leaf has its stem uninjured.

As soon as possible after gathering them the leaves must be pressed. If they begin to

wilt or shrivel before you are ready to press them, put them in water, and keep them there till they revive. See that no soil, no foreign substance of any kind, is on either side, and then with a warm—*not hot*—flat-iron press and iron each leaf on its upper surface till it is perfectly dry; spreading it for this purpose on several layers of paper, or on an ordinary ironing-board, just as if it were cotton cloth. This over, oil each leaf on the same side on which it was ironed with linseed, olive, or lard oil, using a small camel's-hair brush, or a bit of cotton batting tied to a stick; and then place them on dishes in the sunshine to dry. When dry, reject all those that have a semi-transparent or oily appearance; to prevent this, get the thickest leaves you can for your collection, and do not oil them too generously nor with a rough brush.

If you wish to arrange the leaves in boughs, or sprays, or long garlands, procure a few knots of brown worsted, and a quantity of fine wire; old bonnet-wire cleared of its covering, and the wire from the heading of old brooms, are of the right size, and very convenient to use. When the oiled leaves are dry, assort the different kinds according to their species; that is, place the rock or sugar-maples together, then the red or swamp-maples, the English elms, the American elms, the white-oak, the black-oak, and so on; because, though several species are allowable in a garland, it would be unnatural to mingle them in sprays or boughs. The only proper way, however, of bringing them together is to bind the various sprays into a large bouquet; thus the contrasting forms and hues have a good effect.

Cut the wire into pieces of different lengths. You will need a great many three and four inches long, several a foot long, and a few two feet or more, according to the length of the branch or the garland you wish to make. Take the smallest leaves for the tips of the sprays and branches, and follow these with others of larger size, proceeding regularly till you have the largest leaves at the base of the branch; keeping an eye, at the same time, to the agreeable union of varying shades, and studying the marking and blotching of each leaf, so that it shall have no glaring contrast in its nearest fellows; and thus, with the greatest variety in the group, the whole are blended harmoniously and pleasantly.

Begin your work by attaching all but the very smallest leaves to the short wires, placing the wire beneath the stem, and in such a manner that it strengthens its whole length; and then wind the worsted around both so closely and tightly that nothing of the stem or wire can be seen. Then take a small leaf and fasten it in the same way to a long wire, which is to be the main stalk of a branch. Along this dispose the other leaves naturally; bending the ends of their wires as needed, and covering all together by continuing to wind the worsted as before. Several branchlets or sprays may thus be gathered upon one stalk, forming a large bough or a long garland. Avoid stiffness and flatness of position; set and bend the stems in a life-like manner. For this the wire stems are a great advantage. They also contribute to the durability of the leaves, which, if preserved with no support save their own stems, are soon broken, unless extreme care is taken.

The beauty of oak leaves is much enhanced if clusters of acorns in their cups are introduced among them. The cups must be punctured with an awl, to admit the end of the wire that is to serve as stem; the acorns then glued to the inside of the cups. When these are dry, wind the wire with the brown worsted as in uniting the leaves. Birch burrs must be glued directly to the wire, which it will be convenient to wind with the worsted, and form into a branch before the gluing takes place. They are a pretty addition to branches of the golden birch-leaves. The red berries of the black alder, and the scarlet and orange seed-vessels of the *Celastrus scandens*, (climbing bitter-sweet,) gathered before the frost has touched them, will keep fresh and bright on their own stems a long time, and add much to the beauty of any collection of leaves.

These boughs and garlands, arranged tastefully in vases, drooping around pictures or statuary, or hanging upon the walls of a room, seem to lend it the sunshine of a perpetual Indian summer. The most desirable leaves for this purpose are those of the oak, maple, elm, sumach, birch, and wild cherry; though contributions from woody shrubs and garden bushes never come amiss, if of substantial texture and smooth surface; and green leaves of fern—fronds of the common brake—with their long plumes of verdure, make an agreeable contrast to more brilliant colors and more fanciful shapes. Fern-leaves should be ironed in the same manner as other foliage. But they need no oiling, and if not hung where the air is intensely hot and dry, will remain handsome several months.

It is a mistaken notion that autumn leaves need varnishing. Varnish makes them brittle, and more liable to crack; while the excessive lustre that it imparts is unnatural. Oiling gives sufficient polish, deepens, clears, and preserves the colors, and keeps the tissues somewhat elastic. When they get dusty, wipe them with a damp cloth. If they curl, dampen them, and place the branch for a few hours between papers under a pile of heavy books.

The changed leaves of autumn may also be used for other ornamental purposes. Small wreaths to surround unframed pictures can be made, fastening the wired stems by sewing, or by winding with worsted, to a narrow circle of pasteboard, or a ring of wire-taste; the sumach, elm, or cherry-leaves are best for these. And carving may be successfully imitated with oak-leaves and acorns. For this glue the under surface of the leaves to a picture-frame of pasteboard, or of wood stained a dark color; cut the acorns and their cups also, in halves, and intersperse them among the leaves, gluing them in a flat position; and then varnish the whole. The same work makes a pretty front for a bracket. And little sprigs and branches of maple, elm, or cherry, with their natural stems, may be ironed, and then fastened with gum tragacanth to the pretty whitewood boxes, letter-cases, and other articles that are prepared for painting and decalcomanie; being afterward lightly varnished, or not at all, according to fancy. Sprays of maple or elm, or oak-leaves and acorns, may, in the same way, ornament pasteboard or wooden slips for letter and card racks; the lining—which should be of the same shade as the leaves—being first glued to the frame.

Love of Gardening.

"In eastern lands they talk in flowers,
And they tell in a garland their loves and cares;
Each blosso that blooms in their garden bowers
On its leaves a mystic language bears."

MANY of the wisest and best of men have signalized their love of gardens and shrubberies by causing themselves to be buried in them—a custom once frequent among the Greeks, Jews, and Mexicans.

Orpheus is said to have been buried in Thrace; and his monument was surrounded by olive-trees, in which a great number of nightingales were accustomed to build; Plato was buried in the groves of Academus; Wieland buried the wife of his heart in his garden at Osmannstadt, where he was afterward buried himself; and Sir William Temple, though he expected to be interred in Westminster Abbey, gave orders for his heart to be inclosed in a silver casket, and placed under a sun-dial in that part of his garden immediately opposite the window of his library, from which he was accustomed to contemplate the beauties and wonders of his garden.

An ardent lover of nature himself, the Marquis de Girardin thought he could not inter his unfortunate friend Rousseau more to the satisfaction of his immortal spirit than by burying him in the Island of Poplars, situate about ten leagues from Paris.

This eccentric genius, as was justly and nobly observed by one of his bitterest enemies, possessed the head of a man and the heart of a woman. He once took up his abode in the Island of St. Pierre, rising in the Lake of Bienne. Since his residence it has been called Rousseau's Island. This isolated spot is one of the most beautiful in the country; hence, during the vintage, parties of peasants filled the woods and amused themselves in dancing, running, and strolling about, enjoying the coolness of the shade and the freshness of the water. The pleasure which Rousseau enjoyed in this retreat, for a short time, obliterated all sense of injury and misfortune. "I was permitted," says he, "to remain only two months in this delightful island; but I could have passed there two years, two centuries, all eternity, without suffering a moment's fatigue; although my whole society consisted of the steward and his family, I esteem these two months as the happiest period of my life, and so happy

that I could have passed my whole existence without even a momentary wish for another situation."

After a short time spent in this retreat, in a manner so delightful to his imagination, the unfortunate hermit unexpectedly received a peremptory order from the government of Berne to quit the island. On receiving this order, finding that fortune was his irreconcilable enemy, he gave himself up to despair; and petitioned, with all the ardor of a disordered mind, to be condemned to perpetual imprisonment. The only indulgence he required was, to be allowed the use of books, and to be permitted at certain intervals to walk in the open air. Even this was denied him.

"The study of botany," says Dr. Aikin, "caused several summers to glide away with me in a more pure and active delight than almost any other single object ever afforded me. It rendered every walk and ride interesting, and converted the plodding rounds of business into excursions of pleasure."

Don Emanuel, of Portugal, was an admirer of gardens. A lover of music and a cultivator of science, this illustrious prince wore mourning for the loss of men of merit; and history decrees him the honor of banishing distress and poverty from his kingdom.

And here, though last in order, though not least in our estimation, permit me to record an instance of pure taste in a man living in the humblest sphere. His name was Morgan, and he was employed in one of the furnaces in the county of Monmouth, England, for upward of thirty years. All day, and frequently a part of the night, he stood before two immense furnaces, not only in winter, but in summer. He was the picture of an Ethiop; yet his house was clean, and his garden well ordered. "The greatest delight in the world, sir," said he one day, "is a garden; and the best ornament a poor man can have in that garden is a hive of bees." In my youth, too, I knew a young man who won a rich, beautiful, and accomplished wife, by sending her as a present a small collection of flowers, inserted between the leaves of *St. Pierre's Studies of Nature*. The lady was beset with admirers; but she had the good sense to be more captivated with this delicate indication of affection than with the inane gallantry of men who had little to distinguish them but vanity and vacancy, wealth, and a very exalted opinion of their own importance.

The art of gardening was known to the Carthaginians, who were exceedingly attached to flowers.

But the Greeks had little taste for flowers, except as sensual excitements. They seldom imported plants, and took but little pains to improve their indigenous botany.

The Britons were ignorant of this luxury till it was taught them by the Romans. In the time of Agricola, however, they had made great progress, and had reared several species of flowers and fruits; having found their soil sufficiently rich and various for almost every European fruit, except the vine and the olive. The Dutch were late in deriving profit or pleasure from this pursuit. The taste once imbibed, soon became so captivating that they named many of their flowers after distinguished statesmen; $4300 were paid for a single Semper Augustus; for three of them together, $11,000; for one hundred and forty-eight grains weight, $1500; for two hundred and ninety-six grains of Admiral Liefkenshoek, more than $1300; for Admiral Enkhinzen, more than $2000, etc. In 1835, the bulb of a new tulip, called *The Citadel of Antwerp*, was sold to M. Vanderwick, of Amsterdam, for $3200. For a Viceroy on one occasion, were paid four tons of wheat, eight tons of rye, four fat oxen, eight pigs, twelve sheep, two hogsheads of wine, four barrels of beer, two barrels of butter, one thousand pounds of cheese, a bundle of clothes, and a silver pitcher.

At an auction in Alkmaer, some bulbs were sold for more than $30,000. An individual in Amsterdam gained more than $23,000 by this trade in four months. In one city of Holland, it is said, more than ten million tulip bulbs were sold.

Hyacinths first began to rise in estimation in 1730. In that year $650 were paid for "*passe non plus ultra*," and in the same proportion for others. Between Alcmaer and Leyden there are more than twenty acres of land appropriated to hyacinths alone, which thrive best in a loose, sandy soil. The Chinese, too, are accustomed to give large prices for the Montan; hence that flower is not unfrequently called the *Paleangkin*, a word signifying "a hundred ounces of gold."

Hints on Selection of Varieties of Fruit for Fall Transplanting.

It would be well for every cultivator to consult popular preferences of fruit *in the markets*, when he is making up his fruit lists.

Although there are a thousand varieties of the pear and apple together, yet our selection would be less than a dozen of each, and a half-dozen would be better still, giving less chance of failure.

We expect to plant this fall over a thousand pears, plums, and cherries, and the following is our list of varieties:

Standard Pears.

EARLY.	MEDIUM.	LATE.	EXTRA, FOR TRIAL.	DWARFS.
200 Bartlett,	100 Beurre Clairgeau,	100 Beurre d'Anjou,	50 Flemish Beauty,	300 Duchesse d'Angoulême,
100 Clapp's Favorite,	100 Beurre Bosc,	100 Vicar of Winkfield.	50 Virgalieu.	100 Louise Bonne de Jersey,
100 Doyenne Boussock.	100 Seckel.			100 Glout Morceau.

The Flemish Beauty and Virgalieu are liable to crack badly in some localities, but frequently succeed in some fortunate spot year after year. The Louise Bonne de Jersey is somewhat variable; still, like all the rest, it is a popular pear, and worthy of a place on the best list. It will be seen that we divide our forces over a long period of ripening. The Bartlett is our most popular pear; but coming in early, when there is an abundance of other fruit in the market, it does not prove as profitable as those varieties that come several weeks or months later. By reason of extended means of communication, our markets can now be supplied with any kind of fruit at almost any time during the growing season, and prices of *late fruits* prove now more uniformly satisfactory and steady than those of early varieties. Hence, while the Bartlett is the surest to grow, still we find it more politic to divide the list over a gradual series of ripenings.

Best Selection Cherries.

Black Tartarian,	Great Bigarreau of Mezel,	Governor Wood,	Yellow Spanish,	Black Eagle,
Napoleon Bigarreau,	Elton,	Coe's Transparent,	Black Heart,	Knight's Early Black.

The choicer kinds of cherries are now becoming very profitable, and the demand is steadily increasing. Of all varieties, the Black Tartarian is still most popular, and the leading kind. All large, dark-red cherries sell for more than small ones, or even those of yellow and light color.

Best Selection Plums.

Washington,	General Hand,	Reine Claude de Bevay,	Columbia,
Imperial Gage,	Smith's Orleans,	Jefferson,	Bleecker's Gage,
Huling's Superb,	Yellow Gage,	Bradshaw,	Coe's Golden Drop.

Best Selection Apricots.

Moorpark,	Large Early,	Peach,	Breda,	Early Golden.

So few are engaged in the culture of plums and apricots that for some years it will be very remunerative. The terror which the curculio seems to hang over the heads of fruit-growers will serve to keep many from entering into it, and cause many to go out of it. It is, to say the best, a very doubtful branch of fruit culture; but if a single acre can be spared to put out a

hundred trees, and faithfully attended to, we do not see why it should be less profitable or more doubtful than pears or cherries.

Planting Cherry-Trees.

CULTIVATORS who desire to have successful cherry-trees from the time of planting, must not fail to *mulch* them when set out.

We planted some this spring, but, owing to some neglect, they were not mulched, and nearly all have died.

The cherry is a strong-growing tree, but needs moisture at its outset to assist it in a successful start. After it is well established, a light soil is better than a heavy one. Mulching cherry-trees is one of the indispensables to a good plantation, and, in fact, it should be applied to all newly-planted trees. The proportion of loss from dead or dying trees will be much less in consequence of its use.

Barry's Fruit-Garden.

It is to regretted that this valuable old book is out of print. It is exceedingly difficult here to obtain copies for any purpose, although the demand is quite good.

Although we have many works on fruit culture, and of general intrinsic excellence, some of them preëminently so, yet there is no book in our entire library, that has as much "*juice*" and "*pith*" to it as this. If we have a desire to get best ideas of any particular variety, whether advisable to grow it or not, somehow we are best satisfied by consulting this in preference to any other. We esteem it highly for its excellent selection of fruit lists, but, best of all, for its sensible views on the treatment and care of fruit trees.

Those departments included between pages 157 and 244, treating of permanent fruit plantations, and pruning, are unequaled by any thing, for practical information to growers, in the world. We hope a new edition will be issued.

Substitution of Varieties by Nurserymen.

A WESTERN fruit-grower not long since sent an order to a nurseryman for a dozen different varieties of a particular kind of fruit. The order was accepted, acknowledged, and filled. The trees were sent, and supposed to arrive safe; but on examination it was found that, instead of a dozen varieties, *four* came, and of these, of course, double as many trees of each variety as were needed. Readers can well imagine the provoking disappointment and consequent loss. But we are led, beyond this single incident, to consider some of the unfair practices now upheld by even the best of nurseries. The first is the right of *choice of varieties*. In a majority of the wholesale catalogues of the country we see printed, in large italics, the sentence, "*We reserve the right of selection of varieties.*"

We can hardly conceive of a more unfair method of doing business, which is practically a compulsory mode of forcing upon a buyer a lot of stock the nursery does not desire to keep, and the purchaser does not want under any circumstances.

Nearly every fruit-grower takes pains to ascertain the varieties most suitable for his locality, (for all localities are not alike in favorable growth of fruits,) and his order for trees is based on that knowledge. Any change from that list, or any substitution, is a source of deep injury; for, whether he discovers the fact before or after planting, he is almost always a loser in *time*, if not money, and the vexations will hardly atone for the misdeed.

The Bartlett pear is known to be the most desirable pear produced. Every one wants it, and no collection is complete without a good proportion of it; yet no nursery is fully supplied with it, and orders are never half filled, but, on the other hand, ground is devoted to varieties of only poor value or second-rate importance, for which there is little call and less use.

The list of really desirable varieties is being rapidly thinned down, year after year, to a very small number—less than twenty; and nurserymen should be prepared to meet the demand more and more for such leading sorts.

A second method of injustice is in sending No. 2 and No. 3 trees at No. 1 prices. We have seen this practiced oftener than generally supposed, and much injury caused thereby.

Another method is to send trees of a *younger age* than ordered. The owner may receive a good lot of trees of their age, yet will lose time and patience by accepting them instead of the older stock he ordered.

We believe the horticultural trade is as honorable as any other branch of business, and has no more errors or mistakes than others; yet we shall not be satisfied until that obnoxious sentence is expurgated from all catalogues, and every man's order is filled literally as given, or else declined altogether.

The Agriculturist Strawberry.

WHAT is the quality of this famous berry? We characterized it in a late number of THE HORTICULTURIST as "absolutely wretched;" to which the worthy editor of the *American Agriculturist* objects, and considers its flavor good enough for the masses.

We grant the position as compared with the Wilson; but after eating such delicacies as Triomphe de Gand, Jucunda, Napoleon III., and Charles Downing, it is going back a long ways to taste the Agriculturist, and still like it.

We tried it last spring. At one moment a rich, luscious morsel of a Napoleon III. went into our mouth, and then it was followed by a berry of the Agriculturist.

Its immediate ejection would have made our neighbor editor laugh heartily; for we vowed we would never eat it again, and we have kept our word. The truth is, that the Agriculturist is a splendid-looking, productive fruit, berries of large size and handsome color, very attractive in the market to buyers, and brings occasionally astonishing prices.

To a palate unaccustomed to a discriminating taste and comparison with other varieties of choicer character, the quality will hardly be noticed, especially when liberally covered with sugar and cream. It will do for those who have no other berry to grow or eat, and its quality will not be noticed. Imagination, glowing in the delights of "*strawberries and cream*," will cover up all deficiencies. But for ourselves, "*No more, thank you.*"

Naomi Raspberry.

F. R. ELLIOTT still insists that there is a distinct difference from the Franconia.

"Any statement that they are identical is an error. Doubtless, many have got Franconia for Naomi, as the canes of the two in spring or winter are much alike; but Naomi is a berry with smaller granules, a little more conical, and of a richer and far better flavor than the Franconia, while its canes may be classed as perfectly hardy by any who class the Clarke as hardy."

A Sensible Remark.

IN a late number of the *Rural New-Yorker*, F. R. Elliott makes the remark: "That there is distinctness in the differing varieties of raspberries, we do not doubt; but our advice to planters is, not to destroy a plantation of one, until another has been tested in the same locality, and under the same treatment, and found superior." Mr. Moore ought to have paid Mr. Elliott a dollar a word for so good advice, which is worthy of general notice. We believe it the duty of all journalists to encourage new varieties of fruit of genuine excellence, but we think it the height of folly for any one to tear up an old plantation of fruit to put in a new variety, until it has been well tested in the same locality.

A Western Pear Orchard.

MR. LOUIS STRACKE, of Warsaw, Ill., has a pear orchard of 1300 trees, described as a very choice property. They are planted ten feet apart, every other tree a standard, and the intermediate ones dwarfs.

The selection of varieties is:

Bartlett, 225,	Duchesse, 100,	Buffum, 75,
Belle Lucrative, 130,	Flemish Beauty, 50,	Seckel, 95,
Howell, 50,	Beurre d'Anjou, 125,	Louise Bonne de Jersey, 100; and a few others.

The land is well drained, and the trees well cared for, kept properly pinched back, and the branches trained to regular shape. The practice of pinching is concisely explained in Mr. Stracke's own words: 1, To induce fruit-bearing; 2, to improve the shape of the tree; 3, to harden and mature the wood; and 4, to prevent blight. We observe that quite a number of the members of the Warsaw Horticultural Society approve of pinching as a cure for blight, but the good drainage of the land seems, in our mind, the most satisfactory of all methods.

Fruit Culture in Virginia.

WE were aware of the great interest in fruit culture and gardening in Virginia, and that considerable profits had been realized, but could place our hands on no estimate or figures until we received the following a few days since, with some papers from Norfolk. From this port alone there have been shipped:

1,000,000 baskets strawberries,	160,000 boxes tomatoes,
50,000 barrels potatoes,	500 barrels squashes,
40,000 barrels peas,	200 barrels beets,
10,000 barrels snaps,	40,000 bunches of radishes,
650,000 heads cabbage,	100,000 cantaloupes,
20,000 barrels cucumbers,	50,000 watermelons.

The estimated value received for the above is $1,043,200.

These figures are for 1868; those for 1869 must be still larger.

It is stated that one gentleman in Southampton County sold $10,000 worth of strawberries off of ten acres, the buyer furnishing the boxes for transportation. Another gentleman made $8050 from eight acres. Another was able to purchase and improve a splendid farm on the produce of the first two years.

On another truck farm, several New-York gentlemen cleared $45,000 by the sale of berries and vegetables.

These figures are unusually large; but, like all other localities where fruit culture at the outset is exceedingly profitable, too many engage in the business, and year after year prices subside, and the business becomes no more profitable than at other points.

The fruit from Norfolk came through by boat in excellent order; but, arriving at a cool time, before the people felt disposed to eat largely, also in a very abundant supply, the prices averaged only 25 to 30 cents per quart, and as fresh fruit from Maryland and Delaware began to reach the markets, berries from points further South were closed out at any price.

From the extraordinary successes of this year and last, we fear the Virginia growers will overdo the business among themselves, and practically fruit will be as abundant and cheap as Jersey fruit has been this year.

It would be well for all fruit-growers to remember that *moderate quantities* and *steady supplies* are more profitable than a too eager haste for more acres, and therefore more fruit.

Michigan Seedling Strawberry.

As far as our experience has gone, we have found it the finest in growth of all varieties we cultivate. It seems to succeed in any soil, and especially a sandy one, and we have hopes that it will justify the anticipations we have formed of it. We observe that Messrs. Purdy & Johnson are also highly pleased with it. "The plant is the nearest in foliage and vigor to the Wilson of any sort we have ever tried. Fruit, light scarlet, uniform in size; round to flattish; medium to large; *very productive;* flavor, excellent; firm, and will undoubtedly bear carriage a long distance."

Seneca Black-Cap Raspberry.

If we were to choose only one variety of the Black-Caps for family use, we should prefer the Seneca.

It is quite late, fully as much so as the Mammoth Cluster, but has a beautiful habit of growth, very productive, berry of large size, fine quality, and in all respects very desirable for amateur purposes.

We hardly know yet how valuable black-cap raspberries will be in our markets. The people prefer the red varieties, and the black-caps do not seem very popular. It is a mistaken prejudice, we believe; for there is no fruit more thoroughly enjoyable and healthy than a good dish of fine-flavored black raspberries. Dealers tell us that they will not last long in the markets. We trust, if this be the case, that *families* will not forget their claim on their attention.

Marketing Fruit.

The agricultural and horticultural press this year have accomplished much good in inducing fruit-growers to grow their fruit in a better manner, and also to market it in a better manner.

A commission dealer told us lately that, although the shipments of fruit this year had proved double that of any previous year, yet the proportion of good fruit seemed to be greater than ever. Immense quantities of poor strawberries, blackberries, and peaches were sacrificed; yet if even these had been properly assorted and sent in good baskets, the difference in price would have more than redeemed the waste fruit rejected. We remember a special instance. A peach-grower possessing a fine orchard of peach-trees, found, as his men brought in the baskets from the orchard, they contained large quantities of inferior fruit among the better fruit. He assorted carefully before shipping, and of every hundred baskets forty were thrown away as cullings. The sixty remaining were sold in the market for $1.25 per basket, producing $75. Had the original hundred been sent, they would have yielded but $60, and the freight of the other forty counted in the expenses. This instance proves the value of *assorting* fruit for market. We never have known *good fruit* sold at a loss, and in nearly every case it has proved a very handsome profit. Notwithstanding the abundance of strawberries in the market this year, yet the strawberries of the writer averaged 20 cents per quart from beginning to end of the season, and blackberries the same, while immense quantities of medium fruit were closed out at any price.

The great truth as to the failure of so many fruit-growers and amateurs is, that they do not *n d erstand the markets.*

A good observing visit once during the fruit season will do more practical good than a year's stay on the farm, and dozens of books.

Sable Queen Blackberry.

Our observation of it this year leads us to believe it worthy of addition to our present list of blackberries. It seems to be exceedingly productive, while the vine is perfectly hardy; not as luxuriant as either the Lawton or Kittatinny, and more easily restrained and taken care of in cultivation.

The berries are of good, large size, larger than the Dorchester; although not equal to the mammoth specimens of the Wilson and Kittatinny we have grown, still will average as good as the Lawton. The color is of a fine brilliant black, which it retains to the last. The flavor is excellent, pleasant and sweet, entirely free from the acidity which characterizes the Lawton and even the Kittatinny.

We can not say how far it will be valuable for market, as it ripens one week later than any variety now grown; still, in all other qualities it seems to be very suitable for general culture.

Fruit Humbugs.

We observe that the *Rural New-Yorker* announces its intention to level its spear and dash at fruit humbugs of every description, waging unceasing war to the very latest sign of life.

We applaud the *Rural* for adding such a "pious" department to its already ample columns, and trust it may do some good.

But it is a fair question to ask what are fruit humbugs, and how far they can safely go in their exposure.

It is a fair question also to ask whether it is right to pass *final* judgment upon the *first* exhibition of a new variety of fruit, and make reports in accordance with a preconceived prejudice. Every dealer has a "pet," a "fancy;" a majority have new fruits they expect to bring out at some time or other. To throw cold water upon every new aspirant to public favor, without fair examination, will in the end bring ridicule upon the person that practices it.

While it gives life and vivacity to a journal to "pitch into" all new things, we have found from experience the better part of valor to consist in waiting, giving every candidate a fair and unprejudiced trial, telling the plain truth and no more, thus gaining a reputation for reliability, candor, and fair play that is worth more in the long run than an anxiety to expose humbugs.

Pruning Blackberries.

We have never witnessed so fine an example of the benefits of pruning blackberries as we observed lately on the grounds of William Parry, Cinnaminson, N. J.

A field of Lawton blackberry, eight acres, was selected for experiment. The first six rows were pruned closely, both top and side shoots, the year before, while the remainder of the field was left unpruned.

This year, in time of fruiting, the pruned rows all ripened their fruit large, full, abundant, and early. The berries were quickly gathered and quickly disposed of; but on the unpruned portion of the field, an immense number of berries set, and began to color red, but never advanced beyond that point, and never ripened, remaining on the branches and gradually dying out. Even those that did ripen were small and of little value—especially so this year, as blackberries have been so abundant, and brought only very moderate prices.

To obtain a good crop of fruit, blackberry bushes should be cut back in July to four feet in height, and all side-shoots pinched off at the tips every two or three weeks down to September. In this way the canes are fully ripened, and become able to stand the winter weather; the fruit is more abundant, larger, and earlier.

A pruned plantation is a fortune to its owner, just as much so as a well-kept strawberry-bed.

A New Horticultural Editor.

Our friend Andrew S. Fuller has become horticultural editor of the *Hearth and Home*, Mr. Joseph B. Lyman retiring to devote his time specially to the *Tribune*.

We have been accustomed for so long a time to see Mr. Fuller's name attached to his articles, that in his new position his individuality seems lost, and we can not tell now which is Fuller and which is not. A spicy article, however, now and then, will tell us that he is alive and doing good service.

Strawberries among Fruit-Trees.

The *Utica Herald* has a very sensible article disapproving of the practice of growing small fruits among standard fruit-trees:

"The employment of the ground, where young plantations of trees are made, in strawberry-beds, is not to be recommended. We notice that this course is being adopted by some, and more especially by those living in the vicinity of villages, or where there is a market for the sale of the fruit. They argue that the trees need some sort of cultivation; and as the growing of strawberries for market is extremely profitable, a very lucrative business can be carried on in the sale of fruit; while, at the same time, the trees are growing and maturing, and the work laid out on the strawberry-beds is of equal benefit to the plants and the trees. Now, there is scarcely any plant that exhausts the vegetable manure in the earth more rapidly than the strawberry; and hence it is observed that these beds require frequently a change of ground—that is, to be removed to a soil where the vegetable manure has not yet been consumed.

"Young plantations of trees require that the land be thoroughly cultivated from year to year.

"We do not know how far the experience of others accords with our own in regard to strawberry culture among trees, but may remark that while visiting the fruit region of Western New-York, the past summer, we looked over the seed-farm of Mr. Hayward, of Rochester. When this very question of strawberry culture was put by a friend to Mr. Hayward, and his advice asked, Mr. H. replied promptly and decidedly that strawberry culture among a young plantation of trees would be fatal to their thrift and success; and he advised our friend to abandon the idea of growing the plants in connection with his young orchard."

NOTE.—We would be pleased to have any of the readers of THE HORTICULTURIST communicate their experience on this point. Even admitting that there is danger in planting strawberries among fruit-trees, it is still an open question whether the practice is permissible where the ground is highly manured yearly, sufficient to support both crops—the small and the standard fruit.

Raising Strawberries from Seed.

J. S. DOWNER, of Kentucky, who has been so successful with seedling strawberries, gives the secret of his success, which is "attributable mainly to *perseverance*":

"I do not allow myself to become discouraged by failures, and each successive year a new bed of seedling strawberry plants contributes to the interest and enjoyment of the season, to a very great extent, with me. My plan is very simple, and requires only patience. When my berries are fully ripe, I select the desired number, mash them upon coarse paper or a piece of cloth, dry them in the shade for a few days, and then rub them so as to separate the seed, and sow at once. The soil should be well prepared before sowing; and, if the weather is afterward dry, occasional watering of the bed will be necessary. The plants will be up in about ten or twelve days; and if properly cared for by watering in dry weather, removing all the grass and weeds as they appear, these plants will be ready by the next spring to plant out in permanent beds. All the vines or runners should be kept until the testing of the plants has been completed, which usually requires some three fruiting seasons.

"It is often asked, How long before the young seedling strawberry-plant will fruit? With care, most of the plants will produce fruit the first season after sowing the seed."

Transplanting Wild Raspberries.

A FRUIT-GROWER at Pentwater, Michigan, has tried this experiment, and reports to the *Prairie Farmer:*

"When we came here, two years ago, we searched the woods for black raspberries, and found two hundred and fifty, which we set and cultivated. All bear very well; some small, some large. A few bear tremendously of large berries, leaving nothing to be desired, I think, unless earliness; for this is very late, not maturing a berry until the Doolittle is about whipped; and I counted two hundred and twenty trusses with an average of twenty berries to each, on one bush, making a quart by count, making eighty-four quarts on one hill of three bushes."

Rogers's Hybrid Grapes.

MR. ELLIOTT, of Cleveland, in the *Rural New-Yorker*, does not speak encouragingly of Rogers No. 15 and Rogers No. 9. They have been affected with mildew, where he has seen them growing along the lake shores. Iona has done well this year, and the vines are covered with perfect clusters. The Israella and Adirondack are feeble and unhealthy.

The Hampton Bellflower Apple

Is a new seedling grown from seed of the Bellflower, by W. C. Hampton, Mount Victory, Ohio, who states that it has proved one of his largest, finest, and most profitable apples. It ripens from November to February.

Tetofsky Apple.

D. W. ADAMS, of Waukon, Iowa, praises this new Russian apple very highly:

"It is a great prize to us of the far North-west. It is very early, (a trifle earlier than Red Astrachan,) good size, always fair, a very young bearer, and enormously productive. It also is at the very head of the best for hardiness, ranking with the Siberian crabs and Duchess of Oldenburg in one respect. I consider myself very fortunate in having this comparatively new and rare sort in bearing in a situation so exposed as to thoroughly test its many good qualities.

"It is of very similar quality and texture to the Duchess of Oldenburg, namely, a clear, brisk, lively, and abundant juice and breaking flesh—a class of fruits much relished by a large part of our people."

A New Cherry.

A. O. WINCHESTER, of St. Joseph, Michigan, has grown a new seedling cherry, black and sweet, that is described in the *Rural New-Yorker* as of "medium size, roundish oblate, without suture, of a dark, purplish-black color; half tender, with flesh of a dark, liver color, juicy, pleasant, sweet sub-acid, a few removes from the Mazzard."

Arnold's Yellow Canada Raspberry

Is described by a correspondent of the Toronto *Globe* as ripening about the month of July, while all the other sorts were quite green in the vicinity of St. Catharine's. The fruit is of medium size, of pleasant flavor, though not very high this wet season. The amount of fruit on the plant at this time is hardly equal to the Franconia or Philadelphia; yet, on account of its early ripening, it is very desirable. The plant is very hardy, having endured the past three winters without any injury, and is the only perfectly hardy white variety in cultivation. It also bears an autumn crop, ripening in October.

Cherries for the West.

"While it is a fact that the highest-flavored cherries are among those of light color, and they are to a certain extent specially valuable for private gardens, no man planting for market purposes, in localities where the crop has to be shipped, should ever use one of them. I have this year examined over forty seedlings, light colored, many of them really excellent; but I have discouraged the introduction of them all, although two or three ripened at a late period and were free from rot. One or two late black varieties I have made special note of, one especially, which is of a Duke character in size, form, color, and flesh of fruit, but of the sweet or Mazzard variety in growth. If it proves as good two or more years hence continuously, I shall feel like giving it publicity; meantime, in due season, I propose grafts be distributed of it to sections for trial."—*F. R. Elliott in Prairie Farmer.*

Ferris and Caywood Seedling Strawberries.

EDITOR HORTICULTURIST: POUGHKEEPSIE, Aug. 9, 1869.

DEAR SIR: In the August number of THE HORTICULTURIST we find our name attached to two new seedling strawberries, we having had no knowledge of the intention of any one to thus name them.

Five years ago, A. J. Caywood raised many seedling strawberries, and since they have been sadly neglected. One year ago, we sent a gentleman in your vicinity a few plants of some of the seedlings, and made no special selection. Two or three of the varieties we had selected we did not present him. This gentleman, undoubtedly through the purest intentions, has named two of them as above.

Inasmuch as we have some seedlings which we prize more highly, and those we sent to New-York entirely neglected, as we told our friend and the Farmer's Club, we respectfully ask the privilege of saying to your readers that there are no two varieties of strawberries bearing our names.

Very respectfully, FERRIS & CAYWOOD.

Jucunda and Triomphe Strawberries.

THE editor of the *Toronto Globe*, in a comparison of the above two varieties, with notes as to their points of difference, considers the Jucunda is better organized as a plant to be more prolific than the Triomphe de Gand. In the flower of the Jucunda, also, the stamens are more elevated around the stigmas, and the anthers larger and better filled with pollen. Now, it would seem from these observations that the formation had something to do not only with the fertility but the flavor of the fruit; for he remarks that "flavor must surrender its dominion to fertility;" and this conclusion he thinks will hold good with regard to other fruits besides the strawberry. Now, the Jucunda being the most fertile and greatest producer, though so like

the Triomphe de Gand in size, in color, and in form, that it may be taken for that choice variety, lacks the flavor and aroma which is one of the peculiar characteristics of the latter, which has not the bearing quality of the Jucunda. He therefore comes to the conclusion that "we must look for less germs of new life in the higher flavored fruits, and less flavor in those which contain the greater number of seeds, in the varieties of each distinct species."

Successful Plum Culture.

WILLIAM DAY, of Morristown, N. J., an inveterate curculio-hater, lays down his rules for successful plum culture:

"First, let the planter be sure to secure *thrifty trees;* for *no* after-culture will compensate for the loss and consequent mortification and vexation of any attempt to recuperate *stunted plum*-trees; like a stunted mule, they may *grow*, but seldom *thrive*. Next, plant as compact as admissible—say sixteen feet apart—in rows, in the form of a peach orchard, to the extent of one quarter or half-acre at least, as a less quantity of ground occupied than we propose would hardly be a *remunerative* experiment. At this distance each way, 170 trees would plant an acre. Give the trees good nursing, care, and attention, by constant cultivation, *until they are ready to bear*. I should have said the plat should be adjoining the hog-pen; then run around the patch a suitable inclosure, and turn in the hogs, and give them the 'freedom of the city,' from the time the *first blossom* is seen until the fruit is ripening; then turn out the hogs; spread clean straw around the trees for the fruit to be gathered upon; handle it with the greatest care; send immediately to market; pocket the profits, and lie down at night upon your pillow with a clear conscience, thanking the Almighty for so great a blessing as the delicious plum."

Leached Ashes vs. Insects.

THE editor of the *Iowa Homestead* believes in the efficacy of ashes against borers or other insects:

"For many years, the apple-tree borer has given the orchardists great and vexatious troubles, and many experiments have been tried, but almost all proved only a partial remedy, while many have been entire failures. We have tried white-washing, heavy mulching, mounding up the earth about the tree, and several other experiments, and all to but little avail. Washing with weak lye or strong soap-suds seemed to answer a good purpose until heavy rains washed these off, and their effect was gone.

"Some ten years ago, we tried the effect of leached ashes about the trees, a peck to each tree, close to the body; and of four hundred trees so treated, not one was molested by the borer, while one hundred other trees, not so treated, were many of them badly damaged by them. We have continued ever since to use leached ashes about our apple, pear, and plum-trees, and have never seen a borer in any tree so treated; and we consider this remedy so certain and so valuable that we should use the ashes if they should cost one dollar per bushel. It is probable, in the cultivation of the orchard, if a little dirt was thrown or covered upon the ashes, that the borer could get to and into the tree without coming in contact with the alkali of the ashes, and thus the object might be defeated. If trees are free from borers when taken from the nursery, we believe by this treatment they can be kept free for all time to come."

We do not consider the rule entirely certain, neither should it exempt the cultivator from a careful personal examination of the trunks of the trees twice or more each year. The ashes are of the highest value as a fertilizer, as we have often stated before.

Black-Knot in Cherry-Trees.

A CORRESPONDENT of the *New-England Farmer* says that thirteen years ago he took up five cherry-trees covered with black-knot, and set them out in his garden. They have grown well and are now handsome trees. They bear abundantly every year, afford a delightful shade, and are truly an ornament to the garden; but in all directions in the neighborhood the cherry-trees are being spoiled by the black-knot. His trees have been preserved by simply removing the excrescences. As soon as a branch is found to be affected, it is removed, if not too large. If the limb is too large, the knot is shaved off clean. This is all that has been done. On examining the "knots, or excrescences, he invariably finds from one to a half-dozen grubs or worms, varying in size from a microscopic mite to a worm half an inch in length."

Crab-Apple for Hedges.

IN respect to a suitable shrub for hedges, adapted to a high northern latitude, the *Toronto Globe* says: "It has recently occurred to us that the wild crab-apple would prove a good subject to experiment upon in the way of obtaining a hedge plant in every way adapted to our

wants. It is inclined to be shrubby, is a very stiff grower, and well covered with sharp spines, grows much more rapidly than buckthorn or hawthorn, and is perfectly hardy, and liable to no disease or drawback that we are aware of."

Apples for Missouri.

THE *Rural World* recommends the following:

"As to varieties, White Juneating, Early Harvest, and Red Astrachan do well here; Williams little known; Benoni, so far as tried, satisfactory. Very few of the others are of much value here, becoming, as they do, fall fruit; but north of the line of this State, they do well. Fameuse, or Snow, has been one of the most early and profuse bearers we have; fruit small; white flesh, tender and good; bears a heavy crop one year and a light one next. It is regarded in the family as the best in the orchard for apple-butter. The Jeneton, Wine Sop, Ben Davis, Michael Henry Pippin, Campfield, and Gilpin do well here, varying in quality of tree and value of fruit."

A New Prairie Blackberry.

A NEW blackberry has been discovered on the prairies of Illinois, on the grounds of Henry H. Broad, Livingston Co., and been cultivated by him ten years. It has never been injured by winter, and has been remarkably productive. It began to ripen more than two weeks ago, fully ten days before the Lawton, on the same place. The berry is small, but each cane produces a great many. This season many canes bore 800 and some more than 1000 berries each. The canes are as large and vigorous as those of the Lawton.—*Western Exchange.*

Cherries in Illinois.

A CORRESPONDENT of the *Prairie Farmer*, at Hampton, Ill., favors only the Early Richmond cherry:

"Dear-bought experience has taught me that one Early Richmond or English Morello, taking a run of ten years, is worth fifty of the Heart or Duke cherries, of which I was unfortunate enough to plant some three hundred trees of some twenty varieties. Two thirds of these are now dead; the others looking very poorly. As to the stock, the Early Richmond bears some sooner on the Morello. I will not plant any more of the Morello stock. They sucker too much. I consider them a nuisance in any orchard."

Cincinnati Red Raspberry.

L. L. FAIRCHILD, of Wis., has had a favorable experience with this new variety:

"It seems to be perfectly hardy. It has endured a temperature, several times, of below thirty degrees. At one time the thermometer sank to thirty-five degrees below zero. Not a cane was killed or apparently injured. If any one wants a hardy red raspberry, they have it here; it is also a good bearer with us; we think the same ground gives us more quarts of the Cincinnati than we get of the Doolittle. It is bearing from four to five weeks. As to quality, we think it altogether preferable to any of the black-cap family. Those who have purchased it once are pretty sure to call for it again; it is rather too soft for any but home market, yet we have shipped it to Milwaukee—fifty-seven miles—and heard no complaints. It does not seem to be any softer than the Clark, and has the additional recommendation of hardiness. The Clark partially winter-killed the past winter in New-Jersey, while the Cincinnati red, in latitude 43½°, stood the winter perfectly. It has one serious fault. It suckers prodigiously. If the young plants are treated as weeds and hoed down when young, there need be no difficulty in keeping the hills within reasonable limits. In the neighborhood of large cities and towns, a hardy, prolific red raspberry can but prove profitable. We see the present season red raspberries quoted in the Chicago market at 35 cents, while black-caps are only 12½ cents."

Downing's Ever-Bearing Mulberry.

C. B. LINES, of Wabaunsee, Kansas, has a tree of this variety, four years from setting and six years from budding. He represents it as a vigorous, handsome tree, ten feet high, and three years in bearing. The fruit, juicy, fine-flavored, *good*. The tree fruits from the middle of June to the middle of August. Mr. Lines likes them so well that he has determined to put out twenty-five more trees.—*Kansas Farmer.*

Root-Pruning of Fruit-Trees.

THE *Western Rural*, in a careful article on root-pruning, prescribes this method for doing it best:

"In root-pruning, a trench is opened around the tree to be operated on, at a suitable dis-

tance from the trunk, that distance depending upon the size of the tree and the consequent extent of the roots. About one fourth of the roots may be cut away, and as they extend nearly as far as the branches, the diameter of the circle formed by the trench may be regulated by the spread of the branches. In root-pruning small trees, the soil need not be dug out of the trench, as the roots may be cut by driving down a very sharp spade to the required depth. When a large tree is to be operated on, the lowest roots can scarcely be reached without removing the soil from the trench to the depth of a foot and a half, and then cutting a circle with the spade in the bottom of the trench, at least one foot in depth.

"When a tree has been deprived of the greater number of its fibrous or feeding roots by this method of pruning, manure should be applied to encourage the growth of others. A root-pruned tree, without the application of suitable manure, generally produces a large number of very small fruit; but when the trench is filled with suitable manure, and a heavy top-dressing of it applied to the area within the circle, very favorable results may be expected. On the whole, root-pruning has been found to be injurious to the longevity of trees, and should not be resorted to until all other expedients have failed. The best time for performing this operation is in the fall, immediately after the growth of the tree has ceased."

Eumelan Grape.

We have had the pleasure of testing some clusters of fruit from this variety. We are very much pleased with the quality, and think, in this respect, it will be even better liked than the Iona and Israella. We have the vine growing, but not in bearing; and can not yet decide as to its growth and possibility of adaptation to all parts of the country.

Floricultural Notes.

A Splendid Rose Hedge.

The *Florist and Pomologist* describes, in the garden of F. Pryor, Welwyn, England, a rose hedge 280 feet long, skirting one of the principal walks in the kitchen-garden.

The row, originally, was composed of half standards, but afterward was trellised over with wire to the height of about four feet six inches, and four feet in width at the bottom. The whole of the trellis has been filled up with the growth of the roses, and is literally loaded with blooms in all stages of development. The following varieties seem to be admirably adapted to the purpose: Charles Lawson, fine, and a very free bloomer; Lord Raglan; Yellow Persian; Comtesse de Chabrillant, first rate; Blairie, No. 2, beautiful flowers, very fine; Gloire de Dijon, profusely bloomed; Jules Margottin, grand; General Jacqueminot; Caroline de Sansal, Chénédolé, Anna Alexieff, all first-rate; the yellow and copper-colored varieties of the Austrian Briar; and last, though not least, the Manetti, which gives relief and variety to its more showy rivals. That this method of cultivation is a very successful one there can be no doubt.

As the trellising can be made to any height or width, the plan can not be too strongly recommended for furnishing tall or dwarf hedges along the walks of either kitchen or flower-gardens, or even to form back rows in ribbon borders.

Spiræa Palmetta.

The same journal refers to this new variety of the Spiræa introduced into England by Mr. Noble:

"It is found cultivated in almost every garden of the more northern parts of the Japanese empire, and is a most useful object when in bloom, being by far the handsomest of the species in cultivation; the deep purple-red of the stems and branches, passing into the crimson-purple of the glorious corymbs of flowers, contrasting most exquisitely with the foliage, which in autumn assumes beautiful tints of brown and golden yellow. The Spiræa Palmetta is perfectly hardy in England, and will form a valuable addition to our list of hardy herbaceous plants."

Pegged-down Roses.

Few persons are aware of the beauty and elegance of pegged-down roses, when treated as they should be. It is strange so few are to be seen growing on this system, although all who once see them agree in saying that roses are never so effective as when thus managed.

I will attempt to give a short sketch of some of my plants as they are at the present time.

I have just counted 27 blooms on *one* branch of John Hopper, 23 on one branch of Madame Boll, 29 on one branch of General Jacqueminot, 19 on one of Comtesse de Chabrillant, 18 on one of Louise Odier, 24 on one of Souvenir de Charles Montaull, 30 on one of Anna Alexieff, 16 on one of Madame Clémence Joigneaux, and there are scores of others with nearly the same number of flowers. Now, when it is considered that each plant has from five to eight branches loaded with bloom, the effect produced by them can be imagined. I may also state that although these wreaths of roses are so plentiful, the blossoms are by no means inferior to those on the standards.

Perhaps the cause of the pegged-down system not being more general is the length of time required to bring the plants into perfection, namely, three years; but against this drawback, the cultivator must consider that they never wear out, as the young *wood* only is each year pegged down, all the old blooming shoots being cut away.

Some of my beds have been planted twelve years, and are in as fine condition now as when they were three years old.—*Charles J. Perry, in Florist.*

Miss Ingram Rose.

A CORRESPONDENT of the *Journal of Horticulture* (London) remarks: "Never was there a greater disappointment than that occasioned by this new rose. It was hailed by us all as a grand addition, believing, as we did, that it was a hybrid perpetual. It would then have been valuable; as a summer rose, it is useless, being a reproduction only a *leetle* improved over the old Lady Stewart." American florists, what is your experience with it?

Hints for October.

Orchard and Nursery.

THERE is a certain feeling of satisfaction in gathering the fruit from a well-loaded orchard that half robs labor of its tiresomeness, in admiring the ruby and golden fruit, and in anticipating the enjoyment it will give us around the family circle during the coming long winter evenings; and all those who are blessed with a fair crop of apples and pears this season—as many are not who have orchards, in different sections—should spare no pains in saving it with the utmost care.

In gathering fruit, whether for home keeping or for market, too much care can not be exercised in preserving it from being bruised, etc., as a bruise soon begets decay, and a decaying specimen affects soon all others lying contiguous to it.

Ladders of various lengths and kinds, as well as fruit-gatherers, etc., are needed to aid in gathering, baskets lined with paper, or something to prevent the splits galling the fruit when put in and poured out, and bags are needed to gather in, and good clean barrels to pack them in, if for market. Hand-picking from a ladder all that can be well reached, and the use of some kind of fruit-gatherer for those which can not be secured in this way, or from the ground, seems, then, a necessity.

Where the orchard is of any considerable size, bearing a considerable burden, places should be prepared by spreading a good coat of dry, soft hay, or straw, large enough for heaps of several barrels each, and on these empty each basket or bag, as it is filled, very carefully, pouring slowly not to bruise a single specimen. Let it be a rule that every apple, however small, is to be picked, not beaten or shaken from the tree.

After the gathering for the day is over—it should be over before the dew begins to fall much—these piles, in the open air, should be covered with some covering—the best is good hay-caps of large size—for the night, and to remain on wet or lowery days. After lying a few days, the fruit will have dried off and become cool, when it should be put in barrels, headed up, and lifted into a wagon, and carried to the fruit-room or storehouse. Never allow the barrels to be rolled on their sides, as it is apt to bruise the fruit.

In packing the fruit in the barrels, it is done much nicer to take out the bottom head, spread a neat white paper over the inside of the other, and pack the apples in carefully and closely by hand; carefully rocking the barrel back and forth two or three times, as it is filled; fill to a little rounding, lay on the head, and gently press it into place with a lever or screw, drive the hoops, and fasten with three or four shingle-nails driven through the chime hoop into the head. If it is inconvenient to put the barrels under cover, and they are to remain out over night, lay them on their sides, piling them up carefully, and over the top put boards to cover.

Recollect, in marketing fruit, or in putting it up for the purpose, that fair, even packing, all good fruit, builds up an enviable reputation, which will pay better than any temporary advantage gained by "facing," or other unjustifiable means. All men are governed to a greater or less extent by appearance, and often the very appearance of an article in market sells it or

causes its rejection. We naturally suppose that if extra care has been used in preparing an article for market—packing it carefully in neat, clean packages, etc.—the article is worthy of it, and we act accordingly.

Pears, in the orchard, ripen at about the same time with the apples, and should be gathered as soon as they arrive at a fit state of maturity. As with the apples, a greater proportionate amount of care should be used in picking, sorting, handling, and barreling; pick into baskets, and carry at once to the fruit-room, and distribute according to variety, in heaps, on the shelves, or as past experience teaches is the best mode for keeping. Various modes are used for keeping fruit of different kinds, but the main requisite for apples and pears seems to resolve itself into the following: Perfect, well-matured fruit, put away in a dark, dry, cool room, and kept at a uniform low temperature; the nearer the freezing-point without actual freezing, the better it keeps.

The present month is the proper season for fall planting all kinds of hardy, deciduous trees, except stoned fruits. The old maxims can not be too often repeated: "Plant trees; don't buy of tree peddlers, but of known, reliable nurserymen; and prepare the soil well first, ere planting at all." Select, where practicable, from nurseries of similar soil to that to be planted on, and only such varieties as are hardy and likely to succeed with the care to be accorded them.

In selecting locations for new orchards, especially of apples, many points are to be looked at, one of which, too frequently overlooked, should receive more attention; we refer to selecting the highest, dryest, coldest location, having a suitable soil, and then protecting the fruit from prevailing winds by wind-breaks. These high positions are the most favorable to good, thorough drainage, and security from untimely frosts; are subject to less extremes, or sudden transitions of temperature. The soil should be a healthy one, in order to secure a healthy, vital action to the trees. Excessive stimulation to growth should be avoided, as it tends to induce blight and disease, inviting the invasion of destructive insects, etc. Orchards wanting in vitality or health are frequently more subject to insect invasion than the more healthy. Excessive growth often prevents full maturity, inducing to summer-blight and winter-killing.

Trees transplanted should never be allowed to dry out, to become shrunken while out of the soil, in transportation, etc. All bruised or injured roots should be cut off smooth, while the top should be judiciously pruned and shortened in; remembering that a tree should be formed when young; for "just as the twig is bent, the tree's inclined."

Nurserymen will now appreciate the benefit of ample preparation for fall trade, in having every thing at hand to facilitate and expedite business, such as labels, stakes, packing material, etc. Too much care can not be used, in taking up and heeling in trees to supply orders, in avoiding injury to the tree or its roots, and in keeping sorts distinct. Never substitute another variety, unless so authorized, for any order; you will always give better satisfaction to let the order go without filling.

Manure and its judicious use is the secret of good crops of fruit, and the stimulating to rapid, vigorous growth of young trees; and recollect that you can not have it in abundance unless pains are taken to save and accumulate from every available source.

Collect tree and shrub seeds of all kinds as soon as they ripen, and plant, or keep in sand, or otherwise, according as their nature requires, to plant in spring.

Fruit-Garden.

The past season has been a propitious one to the grower of most kinds of small fruits for abundant crops. Grapes are about the only variety of the small fruits that have seemed to suffer from the season, disease, etc.; these, we notice from reports from the West, are somewhat affected, in some locations, by rust, rot, and kindred diseases; but this affection is nothing like general.

We have seen on one or two places that the vines have been injured to some extent by something, we are not decided what; it appears on this year's growth something like a scar from the sting of an insect, only longer and more of it, unless the insects were numerous; some of the scars seem continuous from one to two inches in length, by from a line up to one fourth the circumference; in some cases it causes the death of the new growth. We have examined it, and others on whose grounds it appeared have watched, but could discover no visible cause which could be assigned for it.

Have we discovered the best mode for managing the vine? Our opinion is, we have more to learn than has been yet learned; that all varieties adapted to similar soils, etc., are to be treated alike, in pruning, culture, etc., we believe is far from true, or that the vine on different soils, and in our climate, can be successfully treated as on the European continent. We have much yet to learn of the influence that climate, soil, etc., exert over the growth and culture of fruit.

We have been trying to induce the roots of vines and trees to reach down into the ground, thinking that they might do better, bear more and better fruit; is this the correct method? Is it not better to keep the feeding roots nearer the surface, where they can be fed by surface applications, and feel the warmth and influence of the sun's rays, warm rains, etc.?

The quince, that too much neglected fruit which is made to take up with some out-of-the way corner, should receive more and better attention in its culture and the preservation of its fruit. The tree occupies but little space, is hardy, and the fruit a superior one for the dessert, even when we have all the other summer fruits preserved in abundance; it fills a place that no other occupies. A well-matured quince-tree or bush given suitable attention will yield two or three bushels of fine fruit, which, when well harvested and properly marketed, will bring two dollars to four dollars per bushel. The great enemy of the quince-tree is the borer, and the young trees want frequent attention to keep them off. Mulching with coal-ashes is good, or protecting the trunk from the roots a few inches up with tea lead will usually ward off the borer. No fruit is more easily injured by careless harvesting than the quince; consequently the greatest care should be used in gathering, etc., after which they are barreled and treated as apples.

Lawn and Flower-Garden.

THE fall of the year and October suggests the time for improvements in old grounds, planning and planting of new. And what shall we say new of planting; is there any suggestion that we can make that will serve to develop taste? For, in taste and tact, we consider lie the whole secret of the art of planting and ornamenting lawns, pleasure-grounds, or ornamental gardens. True taste and native tact are rare qualities, and when found they will usually be combined in one and the same individual.

There are plenty of rules and plans laid down in the books for laying out and planting grounds, but without this native tact in arranging and adapting, they will be of but little avail to the novice; so we would say, study your grounds, and adapt your planting or planning to them; for every location has some points to be developed peculiar to itself.

If our rural, and, as to that, many of our city inhabitants, were to try and see what they could do toward ornamenting their dwellings and surroundings, and could be made to understand that ornamenting did not necessarily mean expense, they would be surprised how cheaply a little true taste could be developed, and how much pleasanter their surroundings could be made by the bare expenditure of a little time.

In ornamenting grounds, some regard must be paid to the demands of the day, not to make too great a departure from the best accepted taste, as we are told that "society makes certain fashions, and custom demands its votaries to conform thereto." Beauty, to be admired, must consist in conforming to the general good taste; and in planting trees, shrubs, etc., we are apt to select for admiration the rare, even if it may be less regularly beautiful than the more common, for the latter by being so common loses its attractions by its familiarity.

Beds emptied of their annuals, and bedding plants, may now be well manured, and have it well spaded in. Wherever sufficient flowers are left to make a pleasant show, pains should be taken to preserve their beauty as long as possible from the effects of frosts.

Finish planting bulbs for spring flowering, if any remain that were not planted last month. Give them good, generously rich soil, adapted to the variety, and, before the ground freezes, cover well with coarse manure.

Any perennials desired may be transplanted now without fear of injury, as they are well supplied with fibrous roots. No class of plants are more grateful for good care and kindness, although they may survive quite rough usage.

Dahlias, Gladiolus, Tuberoses, and all other plants requiring winter protection for their bulbs and roots, in the cellar, etc., should be taken up soon after having their foliage cut down by frosts. Leave the dahlias to dry a few hours, and then store away in the cellar, where they will keep safe from frost or dampness. Gladiolus and tuberoses should be well-dried, wrapped in papers, put in a box, and stored in a dry room where they will keep at as near a uniform temperature as possible.

Chrysanthemums, in flower, should be labeled as to name and color, against putting away for spring planting. Some plants may be potted to bloom in-doors; shade for a few days till they recover the effects of lifting, etc.

All our bedding-out plants should now be removed in-doors, or to pits. Some will be too large; such should have cuttings taken off and struck, if not already done.

Neatness and order are essential to the well-being of the flower-garden, and all signs of decay should be at once removed; the borders, beds, etc., be kept well trimmed, as neglect spoils the effects of the richest collection, while the observance often renders the most meagre collection beautiful.

Editorial Acknowledgments.

THE editor would return hearty acknowledgments to all patrons for the liberal advertising patronage bestowed this fall upon THE HORTICULTURIST, and he trusts it will continue during each succeeding season. The circulation of THE HORTICULTURIST has steadily increased since the 1st of January last, and the prospects for the future never have been finer. Every one has a word of encouragement. New subscribers are coming in freely, and clubs are forming in all parts of the country, which will restore THE HORTICULTURIST once more and permanently to its former position as the best and widest circulated journal of its kind in the United States. The editor would also present his acknowledgments to the gentlemen who have favored him with their catalogues. Many of them have been prepared at an expense of considerable time and money, and deserve an extended notice, which we will take pleasure in doing as soon as our crowded space can be relieved. We will mention a few of SPECIAL EXCELLENCE:

Catalogues, etc.

Descriptive Catalogue of Grape-Vines and Small Fruit. Finely illustrated. Isidor, Burt & Son, Bushberg, Mo.

Autumn Catalogue and Floral Guide. Tenth edition. 1869. New-York: B. K. Bliss & Sons.

Catalogue of Fruit-Trees. Catalogue of Ornamental Trees. Ellwanger & Barry, Rochester, N. Y.

Vick's Illustrated Catalogue of Hardy Bulbs. Rochester, N. Y.

Descriptive Catalogue of Ornamental Trees. W. & T. Smith, Geneva, N. Y.

Catalogue of Bulbs and Flower Roots. Henry A. Dreer, Philadelphia, Pa.

Catalogue Monroe Nurseries. J. Wentz, Rochester, N. Y.

Catalogue of Fruit and Ornamental Trees. Thompson & Adams, Brookfield, Mo.

Descriptive Catalogue of Nursery Stock. Dudley & Merrell, Geneva, N. Y.

Catalogue Ornamental Department. Graves, Selover, Willard & Co., Geneva, N. Y.

Descriptive Catalogue of Fruit and Ornamental Trees. C. F. Babcock, Summerfield, Ill.

Miscellaneous Catalogues Received.

Wholesale Catalogue. Mahlon Moon, Morrisville, Pa.

Catalogue of Fruit-Trees. A. D. Webb, Bowling Green, Ky.

Price-List; Fall, 1869. E. T. Field, Middletown, N. J.

Price-List of Grape-Vines. John Hazleton, Delaware, O.

Wholesale Catalogue Star Nurseries. Hargis & Sommer, Quincy, Ill.

Trade-List of Nursery Stock. Dudley & Merrell, Geneva, N. Y.

Wholesale Catalogue. J. Wentz, Rochester, N. Y.

Price-List of Fruits. E. J. Evans & Co., York, Pa.

Price-List; Fall, 1869. Quaker Valley Nurseries, Winona, O.

Price-List of Grape-Vines. E. A. Riehl, Alton, Ill.

Wholesale Trade-List. T. C. Maxwell & Bros., Geneva, N. Y.

Price-List of Grape-Vines. T. S. Hubbard & Co., Fredonia, N. Y.

Trade Catalogue of Bulbs. J. M. Thorburn & Co., New-York.

Circular of Black-Cap Raspberries. Warren Wight, Waterloo, N. Y.

Circular of Black-Cap Raspberries. Joseph Sinton, Angola, N. Y.

Catalogue of Green-House Plants. John Codness, Flushing, L. I.

Catalogue of Fruits, etc. William Watson, Brenham, Texas.

Circular of Apples. S. B. Marshall, Cleveland, O.

Trade-List; Autumn, 1869. Gould Bros., Rochester, N. Y.

Wholesale Catalogue and Trade-List. Gould Bros., Rochester, N. Y.

Catalogue of Small Fruits. James Draper, Worcester, Mass.

Catalogue of Fruit and Ornamental Trees. P. J. Berckmans, Augusta, Ga.

Wholesale Trade-List. E. Moody & Sons, Lockport, N. Y.

Wholesale Circular. Robert J. Halliday, Baltimore, Md.

Grape-Vines and Small Fruits. Pfiffner & Marquardt, Delaware, Ohio.

Price-List of Trees and Plants. Charles Black, Hightstown, N. J.

Wholesale Trade-List. W. & T. Smith, Geneva, N. J.

Descriptive Catalogue. Thompson & Adams, Brookfield, Wis.

Wholesale Trade-List. W. F. Heike's Nurseries, Dayton, Ohio.

Wholesale Trade-List. Nicholas & Newson, Geneva, N. Y.

Catalogue and Price-List. J. W. Manning, Reading, Mass.

Descriptive Catalogue of Fruits. Descriptive Catalogue of Ornamental Trees. W. & T. Smith, Geneva, N. Y.

Trade-List; Autumn, 1869. Hoopes Bros. & Thomas, Westchester, Pa.

Circulars and Price-Lists. American Basket Co., New-Britain, Ct.

Retail and Descriptive Catalogue of Small Fruits. John Knox, Pittsburg, Pa.

Wholesale Catalogue. Robert Douglass & Son, Waukegan, Ill.

Davison's Thornless Raspberry. Joseph Sinton, Angola, N. Y.